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# USSR Report

## MILITARY AFFAIRS

### AVIATION AND COSMONAUTICS

No. 8, AUGUST 1985

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31 December 1985

USSR REPORT  
MILITARY AFFAIRS

AVIATION AND COSMONAUTICS

No 8, August 1985

Except where indicated otherwise in the table of contents the following is a complete translation of the Russian-language monthly journal AVIATSIYA I KOSMONAVTIKA published in Moscow.

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MARSHAL YEFIMOV LAUDS SOVIET AIR FORCES

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 1-3

[Article by twice Hero of the Soviet Union Mar Avn Aleksandr Nikolayevich Yefimov, commander in chief of the Air Forces and deputy minister of defense USSR: "Winged Might of the Homeland"]

[Text] On 18 August 1985 the Soviet people and their Armed Forces are celebrating an important date -- USSR Air Force Day.

This traditional holiday has become a truly nationwide review of the achievements of Soviet aviation, our pilots, navigators, engineers, technicians, all aviation specialists, scientists and designers, aircraft industry workers, employees of Aeroflot, and DOSAAF members involved in the aviation sports.

Soviet aviation is the pride and joy of our people. It produced the first Heroes of the Soviet Union, and the trailblazers of space are products of Soviet aviation.

This year as well USSR Air Force Day is being celebrated in an atmosphere of high political and labor enthusiasm on the part of Soviet citizens, evoked by active preparations by party and people for the forthcoming 27th CPSU Congress. They are marching toward this historic event of enormous political significance with pride and awareness of the correctness of the deathless ideas of Lenin and with confidence in their productive energies.

The fighting men of the Soviet Armed Forces, just as all Soviet citizens, are filled with resolve to work with maximum effort to accomplish the tasks assigned by the April (1985) CPSU Central Committee Plenum. Its decisions define the main directions, the spirit and style of all precongress work.

Establishment and development of the Soviet Air Force is directly linked with the name of the founder of the Communist Party and Soviet State, leader of the world proletariat, Vladimir Ilich Lenin. He made the fundamental decisions pertaining to organizing the Red Air Fleet, in which he insightfully saw not only an important mode of transportation and communications in peacetime conditions but also a powerful weapon of armed struggle. The first Soviet

aviation detachment of 12 aircrews was formed on the personal orders of V. I. Lenin immediately following the Great October Socialist Revolution, on 10 November 1917, and a provisional command and control agency was established -- the Office of Commissars of Aviation and Lighter-Than-Air Aeronautics. The large-scale forming of aviation detachments began on 28 January 1918, pursuant to the decree calling for organization of a Workers' and Peasants' Red Army. The first Soviet aviators included Communists -- persons of a special mold, totally devoted to the revolution and the ideals of communism.

V. I. Lenin devoted constant attention to matters pertaining to equipping the army, air force, and navy, and actively supported scientific research of important defense significance. He displayed particular interest in the activities of K. E. Tsiolkovskiy, author of theory of rocket flight, N. Ye. Zhukovskiy, father of Russian aviation, and paid close attention to the activities of other prominent scientists as well. The Central Aerohydrodynamics Institute (TsAGI) was established on Vladimir Ilich's instructions in December 1918, becoming a major scientific research center.

While displaying strong concern for supplying and equipping aviation detachments, the Soviet Government at the same time was organizing training of flight personnel. The country's first higher aviation educational institution was established in 1920, redesignated in 1922 the Air Force Academy imeni N. Ye. Zhukovskiy, who played an important role in training skilled command and engineer cadres for aviation.

During the Civil War our military aviation conducted aggressive combat operations in defense of the young Soviet Republic. In the summer and fall of 1918 Soviet pilots operated with success in the battles for Tsaritsyn, where the groundwork was laid for organizing close coordination between air and ground forces. The principle of massed employment of aviation was first applied in the battles at Kazan in August-September 1918.

Following the victorious conclusion of the Civil War, our people proceeded with restoring and rebuilding the nation's economy. The Communist Party and Soviet Government displayed tireless concern with strengthening the Armed Forces and aviation, a component part of the military. A commission to draw up a maximum aircraft construction program was formed in this country in January 1921, and in March of that same year measures pertaining to further organizational development and strengthening of the Air Force were discussed at the 10th Congress of the Russian Communist Party (of Bolsheviks). The party appeal "Toiling People, Build the Air Force!" became the slogan of millions, a fighting motto of the youth of the 1920's. A mass-membership voluntary Society of Friends of the Air Force (ODVF) was established in this country in March 1923.

An important role in the emergence of aviation was played by the 9th All-Union Komsomol Congress, which on 25 January 1931, on behalf of 3 million Komsomol members, adopted the decision to accept the status of patron of the Air Forces of the Workers' and Peasants' Red Army.

The 1930's were a time of outstanding achievements by Soviet aviation, an assault on world aviation records, and demonstration of the capabilities of

the Soviet aircraft industry. The heroic, epic rescue of the crew of the "Chelyuskin" in 1934 will remain forever in the memory of our people. Participants in the rescue operation -- pilots A. Lyapidevskiy, S. Levanevskiy, V. Molokov, N. Kamanin, M. Slepnev, M. Vodopyanov, and I. Doronin -- were the first to be awarded the lofty title Hero of the Soviet Union. The entire world followed with delight and admiration the flight by the Chkalov crew over the North Pole to North America in June 1937. Our homeland earned additional fame as a great aviation power through the exploits of pilots Heroes of the Soviet Union M. Gromov, V. Kokkinaki, A. Yumashev, navigators S. Danilin and I. Spirin, and aviatrixes V. Grizodubova, P. Osipenko, and M. Raskova. A remarkable group of experts in advanced flying techniques and aerial combat developed during those years, persons such as S. Suprun, A. Serov, A. Anisimov, V. Stepanchenok, P. Stefanovskiy, V. Yevseyev, and many others.

Courage, fortitude, bravery, and a high degree of combat skill were displayed by Soviet aviators in carrying out their internationalist duty in the skies over Spain, China, and Mongolia, at Lake Khasan and over the Khalkhin-Gol River.

In the 1930's the Communist Party and Soviet Government undertook a number of measures aimed at further increasing the combat power of our Air Force. Numerical strength was increased, new aviation units and combined units were formed, the Air Forces were reequipped with new-model aircraft, existing airfields were expanded and new ones were built. The T/O structure was improved and operational art successfully developed simultaneously with quantitative and qualitative growth.

The Great Patriotic War was a severe test of the combat might of Soviet military aviation and the moral-combat qualities of our air warriors. The Hitlerite command authorities, in making preparations to attack the Soviet Union, concentrated vast quantities of troops and combat equipment, including approximately 5,000 aircraft, on our western borders.

The element of surprise gave the Fascist aggressor a considerable advantage at the first stage of combat operations. In spite of heavy losses in the initial period of the war, however, our Air Forces preserved the capability to engage aggressively in combat. Supporting ground troops and hitting Fascist aircraft in the air and on the ground, Soviet pilots gradually stripped the enemy of his temporary advantage. Even the following figure attests to this: the Luftwaffe lost 1,284 combat aircraft in less than a month, from 22 June through 19 July 1941.

Our Air Forces achieved success by massing air efforts in the principal sectors of the battles being fought by ground forces. In the battles of Moscow and Stalingrad, the Battle of the Caucasus, the Kuban, and Kursk, a gigantic battle for air supremacy was fought, in the interests of executing strategic operations and bringing the war as a whole to an end. By 1943, thanks to selfless efforts by the Soviet people on the home front, the Air Forces had taken delivery on first-class aircraft which were superior in performance and armament to the aircraft of Fascist Germany.

Many Soviet fighter and ground-attack pilots distinguished themselves in fighting off the onslaught by enemy air forces in the skies over Kursk. An immortal feat was performed by Gds Sr Lt A. Gorovets. He engaged 20 enemy bombers and brought down 9 of them. This intrepid pilot was posthumously awarded the title Hero of the Soviet Union. Famed ace and today Marshal of Aviation I. Kozhedub claimed his first kill in this battle.

Courage, skill, and total devotion to the homeland were also displayed in pilot actions in other operations as well. They selflessly assisted ground troops and naval forces in fierce battles with the fascist invaders. The Air Forces constituted a reliable support in carrying out the strategic plans of the Supreme High Command.

Large Hitlerite army forces were defeated in detail with highly aggressive Soviet air activities at Bobruysk, Minsk, Korsun-Shevchenkovskiy, Iasi, Kishinev, Breslau, Koenigsberg, and Berlin. While 200-500 aircraft took part in each operation in 1941, and as many as several thousand in 1943-1945, up to 7,500 aircraft were involved in the 1945 Berlin Operation. Soviet military aircraft flew more than 3 million combat sorties during the years of the Great Patriotic War. Our pilots destroyed 57,000 Hitlerite aircraft in air-to-air combat and air-to-ground strikes. The fascists suffered three fourths of their total aircraft losses on the Soviet-German front.

Soviet fliers, just as all army and navy personnel, displayed selfless courage, unswerving staunchness and heroism in combat with the hated foe. From the very first hours of the war Soviet aviators added air-to-air ramming to the arsenal of aerial combat weapons, an action unprescribed by any military manuals other than the "manual" of total love for the socialist homeland and personal responsibility for its defense. On 22 June 1941 our pilots rammed a good number of airborne aircraft bearing the Fascist swastika on their fuselage. More than 600 such rammings were performed during all the years of the Great Patriotic War. 34 pilots carried out aerial rammings on two occasions, while Hero of the Soviet Union A. Khlobystov did it 3 times.

Capt N. Gastello performed the first aircraft ramming of a ground target on 26 June 1941. A total of more than 500 such rammings were performed during the entire war, 286 of which were by ground attack aircrews, 119 by bomber crews, and 98 by fighter pilots.

Courageous images of pilot-heroes A. Maresyev, L. Belousov, Z. Sorokin, I. Mashkov, G. Kuzmin and others, who found the inner strength to take to the skies once again after recovering from serious wounds and injuries, will remain forever in the memory of our people as a living example of love for the homeland and faithfulness to military duty.

More than 200,000 aviators were awarded medals and decorations for excellent performance of combat missions, for heroism and valor; 2,420 persons were awarded the title Hero of the Soviet Union, 65 individuals were twice awarded this title, while famed air aces, today marshals of aviation, A. Pokryshkin and I. Kozhedub were three times named Hero of the Soviet Union. A total of 897 aviation combined units and units were awarded USSR decorations, 708 were awarded honorary name designations, and 228 were awarded the guards title.

The Leninist Communist Party was the inspiring force behind and organizer of the struggle by our entire people against the aggressor. Guided by the behests of the great leader, it directed all its organizer genius and talent toward a single goal -- achievement of victory over the enemy.

Purposeful party-political work played a most important role in mobilizing aviation personnel to crush the fascist aggressors. Air Forces political agencies and party organizations, working together with command personnel, tirelessly developed in aviation personnel excellent moral-fighting qualities, courage, valor, and heroism, instilled a dedicated hatred toward fascism, and called upon them to perform exploits in the name of the socialist homeland. Their thoughts with the homeland and the Leninist Party, Soviet fighting men withstood the furious onslaught of the Hitlerite war machine, totally smashed it, and won a victory of world-historic significance in the Great Patriotic War.

Our Air Forces also made a worthy contribution toward the crushing defeat of militarist Japan.

Recently the Soviet people, progressive mankind, and all honorable people throughout the world joyously celebrated the 40th anniversary of the Great Victory over German Fascism. Remembering the incredibly immense price which the Soviet people and other peoples of the anti-Hitler coalition paid for this victory and returning again and again to the tragedy which befell civilization, the Communist Party and Soviet Government consider preventing the imperialists from unleashing another world war, fraught with the danger of a nuclear catastrophe, to be the main significance of their postwar foreign-policy activity.

In the postwar years the Soviet State found the resources and capabilities to accomplish rapid rebuilding of the war-demolished economy and to achieve a steady increase in the country's economic and defense might. The Soviet people, guided by the Communist Party, have built a developed socialist society and are presently successfully accomplishing the tasks of improving it.

Our achievements, growth in the international prestige of the USSR and the other nations of the socialist community, and the successes of the forces of peace, democracy and social progress are not to the liking of reactionary imperialist circles, which are strenuously engaged in nurturing plans to unleash new wars and military conflicts. Such an aggressive, adventuristic policy has been revealed in particular in the actions of the current U.S. administration. It was stated at the April (1985) CPSU Central Committee Plenum that no special political acumen is required to see that in recent years imperialism has stepped up its subversive activities and is coordinating its actions against the socialist nations. This extends to all domains -- the political, economic, ideological, and military.

In these conditions the CPSU Central Committee and Soviet Government are doing everything necessary to ensure that our country's defense capability is maintained at the proper level. "Nor shall we spare any efforts in the

future," CPSU Central Committee General Secretary M. S. Gorbachev emphasized in his speech at the Plenum, "to ensure that the USSR Armed Forces possess everything they need to accomplish reliable defense of our homeland and its allies, to ensure that nobody catches us napping."

Concern by party and state for further increasing the defense capability of our homeland finds concrete expression in growth of the combat might of the Soviet Air Forces. In recent years Soviet military aviation has risen to a qualitatively new and higher level. Its combat power is today grounded on supersonic, high-altitude, all-weather missile-armed aircraft, carrying the most modern armament, means of detecting the adversary and fire-control equipment, and the newest navigation and aiming gear. Soviet military aviation possesses a high degree of mobility and maneuverability and the capability to employ various weaponry and electronic warfare equipment in all weather, year round, day or night.

Our military aviation today consists of supersonic all-weather fighters and bombers, transport aircraft and ground-troops fire support helicopters. They are all distinguished by excellent fire capabilities and a high degree of reliability. Military aviators fly swing-wing aircraft as well as embarked V/STOL aircraft. This complex, formidable hardware is in reliable hands.

The present generation of aviators is working tirelessly to build upon the fine traditions of the older generation -- veterans of the Great Patriotic War -- and is working persistently to improve their level of job proficiency. In classrooms, at airfields, during combat training and practice flights, as well as on simulators, they are working to improve their professional skills and are learning that which is essential in today's air combat. Military aviators display increased tactical maturity and the ability effectively to accomplish assigned tasks in close coordination with units and subunits of the Ground Forces, Air Defense Forces, and naval ships. They are proving by their deeds a profound understanding of their personal responsibility for their preparedness to defend the socialist homeland, our friends and allies.

Socialist competition under the slogan "Our selfless military labor in honor of the 40th anniversary of the Great Victory and the 27th CPSU Congress!", which is in full swing in the line units, serves as an important means of further increasing the combat readiness of the Air Forces and the fighting skills of military aviators. The units and subunits under the command of officers O. Smirnov, A. Tsarkov, A. Shugaley, V. Ognev, V. Denisov, and others have achieved new levels of performance in improving air proficiency, and skillful mastery of new aircraft equipment and weapons, in caring for them, in high-quality performance of combat and political training tasks, and in strengthening military discipline and organization. Their successes are grounded on efficient utilization of aircraft equipment and armament, smooth precision of flight operations, and rigorous observance of the demands of documents governing accident-free flight operations.

There are dozens of aviators among those who have been awarded the title Hero of the Soviet Union in the postwar years. Taking over the traditions from the veterans of the Great Patriotic War, they are carrying on these traditions in a worthy fashion, building upon the combat fame of the Air Forces. Today's

generation of aviators has also added bright pages to the chronicle of heroic deeds in performance of their patriotic and internationalist duty. The names of Heroes of the Soviet Union officer-Communists V. Gaynutdinov, V. Shcherbakov, Ye. Selnyakov, V. Kot, V. Ochirov, V. Pavlov, P. Ruban and others stand shoulder to shoulder with the names of famed war aces. Military aviators act with boldness, decisiveness and cool composure, as combat warriors, in the complex environment of standing alert duty, when performing special assignments and carrying out training flights in conditions maximally approximating actual combat.

In view of the increased probability that aggressive NATO circles will unleash another war, in view of the rabid anti-Sovietism in their policies and the fact that they are apt to resort to any act of provocation, Air Forces personnel are making an all-out effort to increase their vigilance, combat proficiency, and the level of combat readiness of units and combined units.

The quality of performance of assigned tasks has increased substantially in Air Forces units in 1985, a year of active preparations for the 27th CPSU Congress and the 40th anniversary of the Great Victory of the Soviet people over Fascism. On the basis of the experience gained from exercises conducted in past years as well as conclusions from the results of the Zapad-84 [West-84] and Vostok-84 [East-84] exercises, commanders, staffs and political agencies are increasing demandingness and responsibility at all echelons for genuine preparedness of command and control agencies, personnel of units and combined units to perform combat missions in a complex environment taking into account enemy employment of weapons of mass destruction, highly-accurate weaponry, modern air defense hardware and electronic warfare equipment. Everything is being done to ensure that flight personnel possess solid knowledge, an excellent mastery of modern equipment, employ tactics in a skillful manner, are able to deliver accurate and sure fire, possess broad knowledgeability and excellent moral-political and psychological qualities.

The party is focusing Communists and all Soviet citizens on a campaign to achieve further increase in efficiency of the nation's economy, accelerated intensification of production, and toward searching out unutilized capabilities. Paramount importance is attached to the development of initiative, independence, a sense of the new, improving organization and businesslike efficiency, and strengthening order and discipline.

Specific tasks for military cadres proceed from the party's demands. The key to success in accomplishing the tasks assigned by the USSR minister of defense lies in improving their work style, increasing their responsibility for performing their job duties, improving qualitative indices of combat and political training.

Learn that which is necessary in war -- this is the principle which has been and continues to be fundamental in troop training. One must proceed thereby from the increased capabilities of modern weaponry. Training organizers should focus their attention on preparing personnel for actions in conditions of an enemy sneak attack and the enemy's employment of electronic warfare equipment and weapons of mass destruction.

The campaign to achieve excellent quality of the training process and maximally to approximate the conditions of actual combat presupposes persistent efforts to improve the professional training of officers. The ability to organize combat operations, to command and control troops with confidence in complex conditions, to train and indoctrinate one's subordinates is one of the indicators of a commander's maturity and skill.

As we know, wherever there is greater concern for intensifying combat training, its effectiveness is greater. This presupposes first and foremost clear-cut organization of the training and indoctrination process and all job-related activities, a high degree of discipline in all elements of the military organism, and responsibility on the part of cadres for the assigned task.

It is the duty of commanders, political agencies, party and Komsomol organizations to work persistently to indoctrinate personnel in a spirit of constant vigilance, a profound understanding of the acuteness of the international situation, and responsibility for the excellent end result of their labor. It is essential resolutely to place higher demands on each and every party member for carrying out his job-related duties, training schedules, and party decisions. We are focused toward this by the demands of the April (1985) CPSU Central Committee.

The forthcoming accountability report and election campaign is an important stage in the life of our political agencies and party organizations, which unquestionably will promote the cause of further increasing the activeness and militance of party organizations and strengthening of their influence on all aspects of daily life and activities of all military collectives. This will help ensure that the Air Forces arrive at the 27th Congress of the Leninist Communist Party with even higher results in combat and political training, combat readiness and proficiency, and strengthening of military discipline and organization. Invested with the confidence of the people, military aviation personnel, just as all army and navy personnel, are prepared to respond to the first call by the Leninist Party and Soviet Government, to carry out to the end their patriotic and internationalist duty to defend the socialist homeland, the cause of peace and socialism.

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## MIXED RESULTS IN AIRCREWS MASTERING NEW AIRCRAFT

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 4-5

[Article, published under the heading "Be Alert, In a Continuous State of Combat Readiness," by Military Pilot 1st Class Lt Col Yu. Syshchikov: "But the Results Differ...."]

[Text] Gradual upgrading and replacement of aircraft is a natural and logical process. Aircraft of obsolete types are replaced by other, improved aircraft. This certainly requires that aviation personnel upgrade and revamp their knowledge of theory and acquire new skills. Each of these tasks is important in its own way, especially in the period of retraining onto new equipment.

Practical experience indicates that in some subunits these tasks are accomplished faster and with better quality than in others. Why does this happen? We shall endeavor to arrive at an answer with the example of two different subunits, the personnel of which were working on mastering equipment which was new to that subunit, with a slight difference in time. Commanders were guided by the same documents, and conditions were approximately the same. Presently evaluating the work performed by personnel, however, one can state that things were better in the subunit under the command of officer V. Bolnykh. Let us examine the experience of this collective. From the very outset the squadron commander had drawn up a specific personnel theory training plan, in which he specified the sequence of classes and study of the equipment, aerodynamics, other specialized subjects and pilot instructions on flying technique, as well as improvement of skills in working with the cockpit gear. Knowledge was checked right on the parking ramps and in the technical maintenance unit. Aviation personnel were performance-tested on the aircraft, which made it possible to test not only volume of theoretical knowledge but also practical actions. Such an approach to training his subordinates enabled this squadron commander to achieve rather high results.

The squadron authorities also displayed creative initiative at the second stage of mastering the combat equipment. The commander and his deputies constantly kept an eye on each and every combat pilot. The fact is that previously the majority of pilots had become accustomed to operating independently during their years of flight operations, relying on themselves alone, so to speak. Now they had to work in close teamwork and cooperation

with other aviation personnel, in particular with navigators. It was no simple task to accomplish this.

A certain incident gave a warning that such a problem existed. Capt V. Belov's crew took off for the bombing range. The flight was proceeding normally. The crew's actions were smooth and coordinated. But only up to that moment when the aircraft approached the range. Upon approaching the target the navigator, Sr Lt V. Solomein, informed the pilot that he should adjust heading 10 degrees right. It was as if Belov failed to hear the instructions, however.... The result was a miss on the target.

Lieutenant Colonel Bolnykh analyzed this flight in detail at the subsequent debriefing. Aviation personnel had clearly heard the airborne radio exchange, which only served to confirm the erroneous actions of the pilot, who failed to heed the navigator's heading adjustment instructions. At the debriefing session it was ascertained that officer Belov was not alone in doubting the data provided by a navigator. It turned out that there was a lack of mutual understanding in other crews as well.

Emerging from the briefing room, the squadron commander went up to his deputy commander for political affairs.

"What do you think, Grigoriy Ivanovich? Why did Belov and Solomein fail to accomplish the training mission?"

"They aren't yet adequately broken in with each other, and perhaps they still lack experience," the political worker replied.

"I thought so too at first. But now I think differently. Judge for yourself: other aircrews also make mistakes on the bombing range. And as a rule it is those which have not yet formed close contact within the collective. I believe we have failed to consider such a factor as coordination of actions in the interests of achieving a common goal. We must give the matter a good deal of thought and address the problem in earnest."

Time showed that the commander's conclusion was correct. As a result of the measures taken, crew members profoundly realized that coordination of their actions is a guarantee of successful accomplishment of any mission, since all of them are engaged in a common cause, for the sake of which they are improving their knowledge and skills. The subunit command also devoted attention to selecting crew members on the basis of personality compatibility. They began to select crew members who complemented one another. All this affected the crew's air work.

Usually mistakes by flight personnel are encountered more frequently during the period of working into new aircraft. The squadron in question is no exception. But squadron authorities reacted promptly to mistakes, skillfully utilizing all forms and methods of the training and indoctrination process.

Lieutenant Colonel Bolnykh adhered to the following rule: first thoroughly analyze mistakes, demonstrate to the aviators where they are wrong, and then specifies ways to correct these mistakes. This approach to things is entirely

logical, since in the process of mastering aircraft equipment combat aircrews frequently fail to notice errors in their actions. For the most part this occurs due to inadequate skills in the technique of flying an aircraft which is new to them as well as lack of knowledge of its behavioral peculiarities in specific flight conditions.

For example, Capt V. Belov drifted off course while making an instrument approach under the hood and was sent on a go-around. When the instructor pointed out his error to him, the pilot reacted with hostility to the comment. His attitude was: why make a big deal out of it, since the error had been corrected? But Lieutenant Colonel Bolnykh broke into the discussion.

"So you don't believe your instructor? Let's take a look at the flight recorder tapes," the squadron commander calmly stated.

When the tapes were ready for examination it became clear that the pilot had indeed made a mistake on his approach. Carefully examining the tape, Captain Belov sighed in chagrin: "Yes, the instructor is right."

After this the squadron commander took the pilot to the preflight preparation classroom and analyzed the error with diagrams and models. Lieutenant Colonel Bolnykh suggested on the spot how to avoid a similar mistake in the future. It would seem that one could let it go at that: the proper conclusion had been reached. But nevertheless the squadron commander returned to this incident once again during a full discussion of the day's flights. The mistake made by Capt V. Belov was thoroughly analyzed with all personnel.

Lieutenant Colonel Bolnykh would usually proceed in this manner in order to ensure that other pilots not repeat such errors.

Once a rather unpleasant incident occurred in the squadron. Flight operations were in progress. An aircrew headed by Capt A. Bespalov took off on schedule and, proceeding with precision en route, reached the range. But when the decisive moment came, the generally experienced pilot became flustered and failed to maintain the specified flight conditions. The navigator, Capt A. Gaibnazarov, also became flustered. Their bombs missed the target by a considerable margin.

On the following day all squadron flight personnel gathered in a classroom. They proceeded to analyze the incident. The principal reason for the aircrew's gross error was determined -- poor preparation on the ground. The fact is that initial success went somewhat to the head of the members of this crew. Convinced that they had already achieved expertise, they treated preliminary preparation too lightly. Complacency gave rise to error. What conclusions were reached in the collective from this incident? The squadron commander's notebook indicates that the flight was analyzed with all personnel. The aircrews once again went through the target layout on the range. The crews were appropriately proficiency-tested. Special practice sessions were held on equipment to work on bombing when transitioning from one bombsight mode to another....

We could continue the list of measures. And all of them convince one that the squadron commander and his deputies did a great deal to prevent the layering-on of negative elements in the actions of flight personnel. The measures which had been taken made it possible subsequently to avoid similar errors. Confirmation of this is the steady advance by the aircrews through the combat training program.

Unfortunately a somewhat different picture was observed in the subunit under the command of Lt Col M. Obodnikov. What characterizes this picture? First and foremost the fact that in this collective one did not sense in the initial period any enthusiasm on the part of personnel to achieve high-quality mastery of an aircraft which was new to them, nor was this surprising. A mistake had been made during planning and scheduling of the training process. It consisted in the fact that the commander, in drawing up his plan and schedule, incorporated into it those measures which were planned to be carried out at a higher level. And he failed to display any personal initiative, reasoning approximately as follows: why invent anything when instructions have already come down from above. This was the starting point for passivity and lack of originality in the training process.

Training classes in theory were sometimes conducted in a superficial manner. As a rule the knowledge acquired by the aviators was not backed up by developing proper habits in working with cockpit gear. This substantially diminished the quality of assimilation of knowledge and delayed the process of mastering the aircraft. A lack of close unity between theory and practice prepared the soil on which bountiful shoots of various errors appeared.

For example, due to unintelligent operation of the aircraft, Capt S. Arutyunov's aircrew failed to follow proper operating sequence on a bombing run. In the subunit they tended to ignore this serious mistake. The squadron command authorities decided that it had been mere happenstance. As they say, it can happen to anybody. But on the next flight operations shift a similar error was made by Capt V. Zharenkov's crew. At this point they should have gotten concerned. But in the squadron they pretended that nothing out of the way had happened. Failing to encounter a strong response, errors in the actions of flight personnel continued to accumulate.

Having flown out to the range, one of the crews was unable to perform its bombing run, since the aircrew had done a poor job of mastering the equipment at their work stations. The members of another aircrew incorrectly determined their position fixes and bombed the wrong target. How did the squadron command authorities respond to these deficiencies? At the post-mission critique session Lieutenant Colonel Obodnikov communicated to the men the essential points of the incident, revealed the causes of the errors, directing the attention of the attending personnel to the need for more thorough flight preparations, and that ended the matter.

Were sufficient steps taken to avoid similar errors in the future? Experience indicated that the answer is no. Flight critiques not backed up by specific measures failed to exert effective influence on the state of affairs in the squadron. Naturally some time later the logical point was confirmed that if

there is not an adequate response to errors, they will not disappear on their own.

During a routine flight operations shift Capt V. Dokudovskiy released his drag chute while airborne. This is a dangerous precondition for an inflight mishap. Was it a mere random occurrence? It was not. The cause was a poorly-conducted cockpit practice session on the ground. Some time later this pilot made another mistake. Possessing poor knowledge of the operating procedures for the onboard aiming-navigation system, he was unable to utilize its capabilities and hastened to switch it off. Of course training sortie results were poor.

One could state that there is no direct link between these two errors. But it only appears thus at first glance. If proper, purposeful measures had been taken in the squadron in a prompt and timely manner to prevent and correct deficiencies, many of them could have been avoided. Unfortunately the people in the subunit remembered this point only when it was necessary to take decisive measures pertaining to organization of the training process.

The squadron in question was lagging behind the retraining schedule. This became the focus of a serious conversation at the party committee. The command authorities and party committee expended a great deal of effort to correct the deficiencies. Henceforth things improved appreciably in the subunit, but a certain amount of precious time had already been lost. And this had happened because they had displayed the old attitude toward mastering a new aircraft, without considering its specific features and those requirements it imposes on every aviator in new conditions. In the initial period of training, the commander and his deputies failed to display the proper initiative, innovative flexibility, and to focus personnel toward high-quality mastery of a complex aircraft system. All this also caused complacency and, correspondingly, errors in performance.

The process of mastering a new aircraft also presupposes a new approach. As they say, one cannot fly far with old views on problems advanced by practical realities. Marking time instead of improving professional skill cannot be tolerated. The potential adversary, escalating the arms race and improving his weaponry, is strenuously engaged in preparing for war. And if he is successful, all pilots will go into combat. This is why it is essential thoroughly to study amassed experience, to improve methods of instruction and one's work style, and to adopt all new and progressive elements, in order to prepare combat aircrews in an expeditious manner to fight in any and all conditions.

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## BIOGRAPHICAL SKETCH OF LATEST SOVIET ORBITAL CREW

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) p 7

[Article: "Going to Work in Space"]

[Text] The Soyuz T-13 spacecraft, manned by a crew consisting of mission commander twice Hero of the Soviet Union Pilot-Cosmonaut USSR Col V. Dzhanibekov and flight engineer Hero of the Soviet Union Pilot-Cosmonaut USSR V. Savinykh, lifted off from the Soviet launch site at 1040 hours on 6 June 1985.

In the course of the 2-day flight of the Soyuz T-13, several orbital path corrections were made, after which the craft approached the Salyut 7 station to the specified distance. Subsequent control of the approach and docking was handled by the crew manually, and docking with the station occurred at 1250 on 8 June. Then, after checking to ensure an airtight seal on the docking assembly, the crew transferred over into the station and proceeded with the mission work schedule.

This is Vladimir Aleksandrovich Dzhanibekov's fifth mission in space. His previous flights to the Salyut 6 and Salyut 7 stations took place in January 1978, March 1981, June 1982, and July 1984 on board the Soyuz 27, Soyuz 39, Soyuz T-6, and Soyuz T-12 spacecraft. He served as mission commander of two international crews, involving the participation of Mongolian and French cosmonauts.

Viktor Petrovich Savinykh flew a 75-day mission in 1971 as flight engineer on the Soyuz T-4 spacecraft and the Salyut 6 station.

Here are some brief biographical data on the cosmonauts.

V. Dzhanibekov was born on 13 May 1942 in the community of Iskandar, Bostanlykskiy Rayon, Tashkent Oblast. He graduated from the Yeysk Higher Military Aviation School for Pilots in 1965 and served in the Air Forces as an instructor pilot. He joined the cosmonaut corps in 1970. He joined the CPSU that same year. He is heavily involved in sociopolitical work. He is a deputy to the Uzbek SSR Supreme Soviet.

V. Savinykh was born on 7 March 1940 in the village of Berezkiny, Orichevskiy Rayon, Kirov Oblast. He graduated from the Moscow Engineering Institute of Geodesy, Aerial Photography and Cartography in 1969. He then took employment at a design office, working on the development of instruments for spaceborne vehicles. He joined the CPSU in 1963. He joined the cosmonaut corps in 1978. He has taken part in spacecraft mission control activities.

With their selfless labor on board the Salyut 7 orbital scientific station, the cosmonauts are preparing to honor in a worthy manner the 27th Congress of the Communist Party of the Soviet Union.

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## COMPETITION, POLITICAL ACTIVISM HELP AT TACTICAL AIR EXERCISE

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 8-9

[Article, published under the heading "Anticipating the 27th CPSU Congress," by Col A. Saushin: "Where Success Is Born"]

[Text] The intensity of the mock combat was growing with each passing minute. Ground units, carrying out the command authority's battle plan, were successfully accomplishing the assigned missions. They were being given solid air support by aviation personnel, who were demonstrating a high degree of proficiency, initiative, boldness, and determination.

Fighter-bombers swept past at low altitude. They executed an antiaircraft-evading maneuver, turned to their bombing-run heading, and accurately covered the targets with bombs and rockets. Aircrews were particularly busy this day. They were flying air intercepts and bombing.

The 2-ship element consisting of Military Pilot 1st Class Maj S. Kapustin and Sr Lt N. Simenenko displayed a high degree of combat aggressiveness. They flew several sorties that day, receiving marks of excellent on their intercepts, bombing, and rocket firing.

I am well acquainted with the element leader, squadron deputy commander for political affairs Maj S. Kapustin. This officer is what you might call a top-grade political worker. He knows and likes his job, and he has the ability to encourage others with word and personal example. He flies in all conditions, day and night, accurately hitting his assigned targets. He is successful in passing on his experience and know-how to the younger men. For example, he flew as instructor with his wingman. Sr Lt N. Simenenko handled his aircraft with confidence. He immediately spotted the target and streaked toward it. He scored accurate bomb hits. Major Kapustin was pleased with the young pilot's performance. He had not been wasting his time when he worked to develop self-confidence in the younger pilot, making him practice over and over on the simulator elements of the exercise, and teaching him to distribute his attention in a correct manner.

Officer Simenenko also lived up to his element leader's expectations at the tactical air exercise, as did others. Many of the squadron's pilots did a

fine job at the exercise. An atmosphere of comradely mutual assistance and friendly competition prevailed in the subunit. Considerable credit for this as well goes to Major Kapustin, organizer of party-political work.

We got together with the political worker in a break between sorties. He was talking with squadron engineer Capt V. Vyachin and flight technical maintenance chief Capt V. Uskhopov, a party activist. They were discussing how to organize ideological support of the tactical air exercise. Major Kapustin was given an update on progress in meeting socialist pledges, on excellent performances by aviation engineer service specialists, and on what party members had displayed greater activeness in implementing measures. He reminded them that results of competition among technicians and mechanics should be totaled up in the groups and flights, and that new pledges should be made for the following day. He then instructed the party members to hold talks on the latest world events, on the aggressive policy of imperialism and its military preparations, and on the need for further improvement of combat skills in this connection.

Analyzing the state of affairs in this squadron, one can say that they have firmly adopted in a practical manner such Leninist principles of organization of ideological work as a high degree of party-mindedness, aggressiveness, continuity, and specificity.

On the eve of the tactical air exercise a party meeting was held in the subunit, with the agenda "On Personal Exemplariness by Party Members at a Tactical Air Exercise." A report was presented by party committee member Lt Col V. Kayurov. The CPSU members showed a party-minded attitude in discussion of the topic and presented specific suggestions. Major Kapustin drew the attention of those present to the unchecked arms race in the nations of the aggressive NATO bloc, headed by the United States, their preparations for another war, and suggested stepped-up efforts to instill in party members a high degree of political vigilance and a feeling of responsibility for improving air, weapon, and tactical proficiency. He recommended that activists permeate every presentation, every talk with counterpropagandist content, instilling hatred toward the class enemy.

Party organization secretary S. Dmitriyev stressed the necessity of encompassing all subunit personnel at the exercise with ideological influence. V. Vyachin, the subunit's deputy commander for aviation engineer service, demonstrated with specific examples from the affairs of the collective the importance of a high degree of organization and discipline. He pledged to hold a talk on this topic with aviation personnel. Squadron executive officer S. Batov, directing particular attention toward thorough professional training, called upon party members to wage a determined campaign against unnecessary relaxation of demands and excessive situation simplification. Officers V. Uskhopov and N. Simenenko also presented meaningful suggestions.

The squadron deputy commander for political affairs devoted particular attention during the preparatory period to implementation of adopted decisions. He held a number of political briefing sessions and talks with the men. Exchange of experience and know-how was extensively conducted in the subunit at his initiative. Military pilot 1st class Maj E. Delpers, for

example, discussed the specific features of searching for small targets and en-route terrain orientation. He had previously participated in exercises, knew the area well, and possessed a high level of flying proficiency. His advice to the pilots was useful and instructive.

Although all flight personnel had studied flight safety procedures, the political worker decided to remind them of these procedures and advised the party organization secretary, Capt S. Dmitriyev, to address this item in the visual agitation materials. Activists prepared attractive-appearing posters containing flight safety requirements during a tactical air exercise and set them up in the flight-line area and in the preliminary preparations classroom.

At the recommendation of the squadron deputy commander for political affairs, flight technical maintenance unit chief Capt V. Uskhopov, a member of the party committee, shared his experience and know-how with engineer and technician personnel. He related to the aviation ground specialist personnel the specific features of readying and servicing aircraft in conditions of considerable dampness, and he drew the attention of technical personnel to professional vigilance on the part of inspecting personnel and to observance of safety procedures.

On the eve of the exercise Major Kapustin gathered together the flight commanders and technical maintenance unit chiefs and the group chiefs and discussed with them the role of each individual in organizing socialist competition at a tactical air exercise. They also discussed what pledges pilots and ground maintenance specialists could make. It was determined, for example, that quality of theoretical preparation should be the object of competition in the preparatory stage, that is, knowledge of the equipment, capabilities of the aiming system, safety procedures, elaboration of the most effective combat tactics, etc.

During the exercise a campaign for efficiency of combat employment was conducted on the basis of acquired knowledge: knocking out ground targets on the first pass, high-quality and prompt readying of equipment for flight operations, prevention of equipment malfunction through the fault of flight personnel, and meeting of performance standards in protection against weapons of mass destruction. This approach made it possible to accomplish tasks with a greater guarantee of success.

The socialist competition was also filled with ideological content. Moral-ethical aspects were developed in the pledges: rendering assistance to one another, discipline, and maintaining order on the flight line.

Organizing individual competition by tasks and performance standards, the political worker instructed flight commanders, group chiefs, party and Komsomol activists to make a note of outstanding performers, tell about them in talks, and present their experience and know-how in visual agitation materials. And we should note that the activists successfully accomplished this task.

And this is understandable. On the eve of the exercise Major Kapustin devoted considerable attention to party and Komsomol activists and briefed the men on

how best to utilize the diversified forms of ideological support of tactical air exercise tasks. Together with the secretary of the squadron party organization, he met with the secretaries of the shop party organizations and Komsomol group organizers of the flights, and assigned them specific tasks to be performed during the exercise. Party influence also encompassed the agitators, members of the Lenin Room councils, and news bulletin leaflet editors. Their job included prompt and timely elucidation of current events at home and abroad and dissemination of the know-how of outstanding pilots, technicians, and aircraft mechanics.

Thus the the squadron deputy commander for political affairs endeavored to cover all categories of activists with political influence. This could not help but affect the effectiveness of ideological work in the course of the tactical air exercise.

Since ordnance delivery was scheduled -- bombing and firing at ground targets -- party organization secretary Capt S. Dmitriyev concentrated the bulk of his attention on organizing work in the aircraft armament servicing group. He spoke with the group chief and explained the specific features and significance of the forthcoming activities. The latter in turn held a similar talk with his subordinates and focused Communists and Komsomol members on shock-work military labor. This was also the subject of discussion at a Komsomol meeting held shortly thereafter.

The organizational and ideological work produced good results. The aircraft armament servicing group specialists worked smoothly and with precision, precisely following the sortie schedule. The other specialists also successfully accomplished the assigned tasks. There did not occur a single delay in readying aircraft.

The majority of our aviators are disciplined fighting men. But there are also those who violate discipline. Although they are few in number, they sometimes cause considerable unpleasantness. Major Kapustin worked individually with such personnel. Aircraft mechanic A. Popov, for example, who in the past had been guilty of breaches of discipline, became the focus of special attention on the part of the political worker. An individual talk with him was held, which proved beneficial: this young serviceman worked with precision in the course of the tactical air exercise, displayed a high degree of efficiency and organization, and worked at full effort.

Many ideological measures were conducted in the squadron which were aimed at developing in the aviation personnel political vigilance and class hatred toward the enemies of the homeland. Maj S. Kapustin endeavored to organize things in such a manner that all scheduled items were covered.

In the course of the tactical air exercise the political worker relied on the party and Komsomol activists, skillfully placing them according to the tasks being performed. During redeployment to another airfield, the squadron deputy commander for political affairs and the party organization secretary accompanied flight personnel, organized and conducted ideological and party work. Flight technical maintenance unit chief Capt V. Uskhopov, a member of the party committee, worked with technician personnel. Komsomol work with

young aviation personnel was conducted by flight technical maintenance unit chief officer I. Yevlanov, a member of the squadron party buro. Party activists worked in their assigned areas with a full sense of responsibility, mobilizing the men to accomplish the assigned tasks.

During the period of preparation for the tactical air exercise, party member Kapustin organized measures and found time to take part in them, but during the exercise his time was strictly limited. He had to combine the job duties of political worker and pilot. And this officer succeeded. He did not permit a narrowing of the framework of ideological support of exercise missions, he organized his work efficiently, specifically, and purposefully, he personally participated in publicizing advanced know-how, and he responded to the slightest violations of established procedure.

For example, as soon as Military Pilot 1st Class Maj I. Shakel landed after delivering ordnance on the range, Kapustin asked him to tell the other pilots briefly about the specific features of firing at small targets. Or take the incident when a troubling development occurred: aircraft technician officer V. Petrov violated safety procedures when readying aircraft armament for a sortie. The political worker made sure that this incident was immediately communicated to the men and served as a warning to the other technicians. When Capt S. Dmitriyev's flight successfully accomplished intercepts of air targets, Major Kapustin recommended that the activists report these skilled performances by pilot-Communists in a news bulletin leaflet and photoreport.

The work performance of engineer-technician personnel was also duly praised. The squadron commander noted the precision performance of flight technical maintenance unit chief Capt V. Uskhopov and his subordinates.

Progress in accomplishing socialist pledges was publicized on a special display stand. Top performers based on exercise performance results included pilot Capt S. Dmitriyev, aircraft technician Sr Lt A. Lubyagin, and aircraft mechanic Pvt O. Parsadanyan. The squadron commander cited them as an example to all personnel.

The tactical air exercise came to an end. Performances by squadron personnel received high marks, and this is entirely logical, for the subunit contains a smoothly-functioning, cohesive collective and a strong, militant party organization. Military aviation personnel are successfully accomplishing all assigned tasks and are endeavoring to honor the 27th CPSU Congress with additional achievements in military labor.

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WEST SEEKS TO DISTORT "NOBLE" MISSION OF SOVIET MILITARY

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 10-11

[Article, published under the heading "At the Fronts of the Ideological Struggle," by Maj V. Ovsyannikov: "Truth Against a Lie"]

[Text] Almost four decades have passed since World War II came to an end. The Soviet people and its valiant Armed Forces made a decisive contribution to the defeat of German fascism and Japanese militarism. During the war years bourgeois ideologues did not dare dispute the liberation mission of our army and its defensive character. In the West they proceeded to "forget" about this with the onset of the "cold war." A most militant faction of the reactionary bourgeoisie came into power in the United States at the beginning of the 1980's, a faction which launched a "crusade" against the forces of democracy and socialism, an important place in which is assigned to psychological warfare. A bourgeois social science -- "Sovietology" -- flourishes under the ascendancy of this faction; one of the functions of this science is to distort the policy of the CPSU and the Soviet State, the role and significance of the USSR Armed Forces. The lies and slander which form the basis of this pseudoscience are engendered by hatred toward socialism, toward our country and the Soviet Army, as well as fear of their magnificence and invincibility.

Our foreign policy is grounded on the Leninist principle of peaceful coexistence between nations with differing political and social systems. And the Soviet Union faithfully follows this principle. Bourgeois ideologists, however, in the service of aggressive imperialist circles, attempt to distort the essence of our peace-seeking foreign policy, the role of the USSR Armed Forces, and endeavor to present them as an "instrument of preemptive strike." "...Even today there is in circulation the malevolent myth of a 'Soviet military threat' which Nazism so loudly propagated," stressed CPSU Central Committee General Secretary Comrade M. S. Gorbachev in his address at an official meeting dedicated to the 40th anniversary of the Victory of the Soviet people in the Great Patriotic War. They are utilizing every device: from establishment of a special "aggressor" squadron in the U.S. Air Force

bearing Soviet markings to the publication of multivolume "scholarly" works crammed with rabid anti-Sovietism. They portray the Soviet Armed Forces in these works, for example, in sinister hues, and they claim that Soviet military doctrine calls for the waging of offensive operations at a rapid pace, and that in conformity with this doctrine the Soviet Union has established in particular modern air forces capable of swiftly delivering a crushing attack on the enemy. From this they draw the phony conclusion that the USSR Armed Forces are allegedly an "instrument of aggression."

The authors of such assertions deliberately confuse the political and military-technical aspects of Soviet military doctrine. They do not take the trouble to analyze the historical experience of the USSR Armed Forces, which have never taken part in any aggressive wars, and they do not bother to make a class analysis of the peace-seeking foreign policy of the CPSU and the Soviet State, which proceeds from the very nature of socialism.

Socialism fundamentally rejects the settling of international disputes by means of armed violence. And the Soviet Union has time and again confirmed its striving for peace in a practical manner. For example, the USSR unilaterally pledged not to be the first to employ nuclear weapons and declared a unilateral moratorium on being the first to deploy antisatellite weapons in space. Such a step as the Soviet Union's unilateral moratorium on deployment of medium-range missiles is also a manifestation of good will.

What has Washington undertaken in response to Soviet peace initiatives? The Reagan Administration responded... with a further strategic arms buildup. At the beginning of 1983 U.S. strategic forces possessed 10,000 nuclear warheads, while by 1990 the Pentagon is planning to double this figure. Deployment in Europe of U.S. cruise missiles and Pershing II ballistic missiles continues. The U.S. Air Force has already completed the upgrading of 98 B-52 bombers, which will have the capability of launching cruise missiles. And can the Pentagon's relentless efforts to gain a dominant military-strategic position in earth orbit be called peace-seeking? The United States plans to spend more than 20 billion dollars in the next few years on developing space warfare systems.

The United States, while assuring the public of its dedication to peace, is solidly focusing on a first-strike strategic nuclear policy. The world remembers the atomic bombing of Hiroshima and Nagasaki, carried out by U.S. aircraft 40 years ago. And claims about the "aggressive nature" of the Soviet Armed Forces are aimed at diverting the attention of the workers from U.S. military ambitions and at cooling down the antiwar movement in the capitalist countries. In this manner bourgeois ideologues attempt to paint with the same brush those who threaten peace and those who defend it, those who in actual fact are pursuing a policy of aggression and those who constitute a bulwark of peace, freedom, and independence of peoples.

There is a widespread thesis which appears in the bourgeois literature to the effect that, as the Brookings Institution's S. Kaplan claims in his book "Diplomacy of Force," a buildup by the Soviet Union of its ground and air forces was the reason for breakdown of the process of detente. In addition to his phony claim, the myth of "Soviet blitzkrieg" has recently been

aggressively propagandized in the West. Why did it suddenly appear? The answer is simple. This myth serves as an ideological smokescreen for the NATO offensive concept of "Follow-on Force Attack" -- FOFA, known as the "Rogers Plan." This plan prescribes mounting a surprise, "preemptive" attack to a depth of up to 500 kilometers, nonnuclear in the initial phase, which would require a considerable increase in arsenals of conventional weapons through the addition of "new-generation" combat hardware.

The "Rogers Plan" attaches special importance to air forces. U.S. and NATO military leaders, attempting to disrupt the strategic balance of forces with the Warsaw Pact nations which has been established in Europe, are implementing a number of measures to build up air forces, particularly in Central Europe. The Belgian and Netherlands air forces took delivery on approximately 200 new F-16 fighters. More than 200 Tornado aircraft are now in service with the West German and British air forces; a new missile weapon is being developed in West Germany for this aircraft.

Foreign military experts believe that when uparming of air-force units and subunits in Western Europe with Tornado fighter-bombers is completed, their combat capabilities will increase severalfold, especially their capability to hit the adversary's second echelon and reserves. On the whole, however, "new-generation" conventional weapons can perform practically all missions which in the past have been assigned to tactical nuclear weapons.

Naturally these large-scale military preparations by the imperialist armies are forcing the Soviet Union to undertake corresponding countermeasures. Addressing the April (1985) Central Committee Plenum, CPSU Central Committee General Secretary Comrade M. S. Gorbachev noted that the achieved military-strategic balance must be preserved for the sake of peace. This parity reliably holds in check the aggressive aspirations of imperialism. "We shall continue in the future not sparing any effort," he stressed, "to ensure that the USSR Armed Forces possess everything they need for reliable defense of our homeland and its allies, to ensure that nobody can catch us napping."

Bourgeois fabrications about so-called "Soviet hegemony" include claims by Western Kremlinologists to the effect that the Soviet Armed Forces allegedly serve as an "instrument for gaining Soviet influence in the 'third' world."

Distorting relations between the USSR and the young national states and ascribing to the Soviet Union expansionist aspirations, the ideological servants of the bourgeoisie are turning everything upside down, as it were, for expansion is defined as seizing sources of raw materials, capturing markets for the sale of one's goods, seizing foreign soil for the purpose of economic and political enslavement of other peoples, and strengthening one's own military-strategic position. The large imperialist states, and particularly the United States of America, pursue such aims. The intervention in Lebanon, the bloody aggression against the peoples of Indochina, and the undeclared war against Nicaragua are examples of U.S. great-power expansionist policy. The United States has formed "rapid deployment forces," equipped with large numbers of transport aircraft capable of airlifting, on orders from Washington, a large force to anywhere in the world which has been declared a "zone of vital U.S. interests." It was precisely U.S. military transport

aircraft which landed 4,500 cutthroats from the 82nd Airborne Division on Grenada in the fall of 1983 and delivered approximately 1,000 tons of various supplies to support their combat operations against this little island nation.

The Soviet Union pursues different, quite opposite aims in lending assistance to young developing nations. The principal aim is to help the peoples of these countries to gain their national independence, to enter an independent path of development, and to build their own economy. Bourgeois Kremlinologists deliberately "fail to notice" the class-political foundations of cooperation between our countries -- the anti-imperialist thrust of foreign policy and aversion toward any and all forms of exploitation and enslavement.

One example of this is the "air bridge" across which trucks, food, medicine, and hospital equipment were delivered from the Soviet Union to Ethiopia by transport aircraft. The bulk of the food and other supplies was flown into drought-stricken areas by Soviet pilots. During a visit to our country in December 1984, Mengistu Haile-Mariam, chairman of the Provisional Military Administrative Council of Socialist Ethiopia, expressed his profound gratitude to the Soviet Union for the selfless and timely aid to the Ethiopian people.

Thus all the fanciful conjectures by the bourgeois Kremlinologists about the "aggressiveness" and "expansionism" of Soviet policy are totally without foundation. The peoples of this planet link their hopes for strengthening peace primarily with our nation and with the socialist community. This is attested to by the deep satisfaction on the part of the progressive community with the signing in April 1985 of the Protocol extending the Treaty of Friendship, Cooperation, and Mutual Assistance Among the Warsaw Pact Member Nations. The principal guarantor of holding back imperialism from unleashing a world nuclear missile war is the Soviet Armed Forces, which perform the task of guaranteeing the security of the USSR, the brother socialist countries, and of assisting nations struggling against the imperialist yoke. Their external functions -- the principal and sole function of the army of the developed socialist state -- consists in this and in this alone.

Bourgeois Kremlinologists, however, seeking to slander the achievements of socialism and distort political relations in the Soviet society, attempt to argue that the USSR allegedly attaches "great importance to the preeminence of military force for domestic political objectives" and that the function of a "pretorian army" is inherent in the Soviet Armed Forces -- that is, mercenary troops serving as support for the authorities, grounded on crude force.

They need all these vicious lies by Western ideologues in order to lessen the attractiveness of genuine socialism and to counter it with the "free bourgeois society."

The February 1985 elections to supreme and local agencies of government authority in the union and autonomous republics serve as a convincing refutation of reactionary claims and evidence of the genuinely popular nature of Soviet rule. A total of 6,728 deputies were elected to the supreme soviets of the union republics, for example, representing all the classes and social strata of our society. 33.8 percent of the deputies are workers, 16.8 percent are kolkhoz farmers, 67.1 percent are Communists, and 32.9 percent are party-

unaffiliated. 99.96 percent of the electorate cast their votes for candidates for deputy to the supreme soviets of these union republics. The election results demonstrated the indissoluble unity of the party and people and the total support of the domestic and foreign policy of the CPSU and Soviet State by the working people. Genuine democracy, not a concocted "pretorianism" is a characteristic feature of the Soviet society.

Our military as a social institution does not remain aloof from resolving internal problems and makes a contribution toward improving developed socialism by accomplishing economic-technical tasks. For example, military aviation personnel take part in delivering important economic cargo to remote areas of our country, and at times of natural disasters they come to the aid of the urban and rural populace, rescuing people and property. The technical equipment of the Air Forces has grown immeasurably in the postwar period. Specialists in various areas of technology receive training in the Air Forces. This is of importance both for our country's defense capability and for the economy.

Performance by our military of tasks of this kind, however, is not an internal function. The internal function of an army is defined as its activities as an armed force in the struggle of class forces within a country, which is typical of the armies of the capitalist nations. V. I. Lenin noted that militarism as a "military force" is called upon to be a weapon in the hands of the exploiters "to put down various (economic and political) movements of the proletariat...." In capitalist countries army units are employed to crush worker demonstrations and to establish control in a period of destabilization of the political situation.

An unfortunate example of this is the British military force in Northern Ireland, which is performing the mission of preserving inviolable the existing sociopolitical system in Ulster. British Special Air Service subunits, patterned after the U.S. "Green Berets," have earned a particularly disgraceful reputation as butchers.

The Army of the Soviet land lost its internal function with the victory of socialism in the USSR and with the disappearance of antagonistic classes in the Soviet society. The building of developed socialism in our country strengthens its totally popular character to an even greater degree. Continuous improvement of sociopolitical relations in the USSR in conditions of developed socialism has led to a considerable broadening of the social base of the Armed Forces. Unity of army and people is one of the most important principles of Soviet military organizational development. This unity possesses a strong objective foundation. Its sociopolitical foundation is the socialist societal and governmental system, the indissoluble moral-political unity of our entire Soviet society, and a close alliance between the worker class and the peasantry. The economic foundation consists in the socialist mode of production. Marxism-Leninism is the ideological basis of this unity. Throughout the entire history of the Soviet nation it has been tested by severe ordeals, has been toughened and tempered in battles for the freedom and independence of our homeland. The unity of the people and its army was vividly manifested during the days of celebration of the 40th anniversary of the great victory and honoring of the heroes of the battlefield and home

front. It is presently being manifested with renewed force, in the course of preparations for the 27th CPSU Congress.

Thus the USSR Armed Forces are in the hands of the people and constitute a powerful instrument of a totally popular state in defending its interests against encroachments from without. And no matter how hard the entire "pen-and-ink army" of imperialism tries, it is unable to distort the noble, historic mission of the Soviet Armed Forces.

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## KALMYK HELICOPTER SQUADRON COMMANDER ON AFGHANISTAN TOUR OF DUTY

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 12-14

[Article, published under the heading "They were Decorated by the Homeland," by Col Ye. Besschetnov: "Afghan Maximum"]

[Text] Party member Military Pilot-Expert Marksman Lt Col V. Ochirov was awarded the title Hero of the Soviet Union for courage and heroism displayed while rendering internationalist assistance to the DRA. Hailing from the Kalmyk ASSR, he became his autonomous republic's first Hero of the Soviet Union to be awarded this highest national honor in peacetime. He served two tours of duty with the limited Soviet forces in Afghanistan. Ochirov trained a great many skilled combat pilots and flew hundreds of highly difficult combat training sorties.

The April day was waning when squadron commander Lt Col V. Ochirov, as he was leaving the command post, caught sight of a vehicle heading toward the airfield. A minute later the vehicle disgorged provincial party committee spokesman Comrade Mir-abdullo, member of the Central Committee of People's Democratic Party of Afghanistan. He explained that a band which had come from across the border had hit the community of Kara-Bagi in a surprise attack. The local self-defense detachment and the district party nucleus had been forced to withdraw into the nearby fort, as they were outmanned and outgunned. They were running out of ammunition and had already run out of food....

"You are the only ones we can turn to," said Mir-abdullo, peering hopefully at Ochirov's open countenance. "Wounded defenders and civilian casualties must be evacuated."

"Fine, we shall try to do something."

Ochirov called his superior on the phone to determine a plan of action. Ten minutes later a group of helicopters took off into the late afternoon sky.

The sun was beginning to set, and long shadows were fingering their way across the hilly terrain. Along the road to the right and left of the fort there were half-demolished mud huts and hulks of motor vehicles which had been

burned out by the dushman [bandits]. The bandits were also delivering fire on the self-defense detachment from this location. Anticipating possible countermeasures by the dushman, Ochirov proceeded eastward and ordered Capt Ye. Sukhov to land to the west, while the two Mi-8s which were carrying supplies for the self-defense detachment were to head straight for the fort.

Orange flashes could be seen around the demolished buildings, giving the appearance that arc welding was going on down there: the dushman, spotting the helicopters, had opened fire on them from long range. Ochirov and Sukhov were forced to respond to their challenge. Rockets fired by the helicopters threw up fountains of dry earth, while the wind at ground level raised clouds of dust which floated skyward. A corridor was secured for passage by the Mi-8s.

"Move in!" Ochirov ordered the leader of the Mi-8 pair.

The helicopters, gaining speed, proceeded across the top of the dust cloud one after the other, separated by a short time interval. Captain Safonov, leader of the pair, cut his airspeed and proceeded to drop his cargo as the helicopter maintained slight forward speed. Crates of medical supplies and a sack of rations came out the open doorway. Captain Mikheyev, the wingman, flew above the fort close on his heels and dropped his cargo as well.

The dust began to dissipate. The dushman spotted the Mi-8s and sent several bursts in their direction. Safonov reported hearing hits on his aircraft.

"How are the controls?" Ochirov immediately inquired.

At this time he and Captain Sukhov were flying a second attack run on the target. Safonov reported that his helicopter was responding to the controls but was vibrating somewhat more than normal.

"Let's head for home," the squadron commander ordered.

Half an hour later the group safely landed at its home field.

On the following day they learned that the men of the self-defense detachment, after receiving assistance, had succeeded not only in holding off the siege but in driving back the dushman and administering a good drubbing.

Internationalist duty.... This term has quite definitive content. For Ochirov it also contains special, personal meaning. Valeriy was born in Kazakhstan, in the community of Sulfat, Aralskiy Rayon. His father, Nikolay Boldyrevich, is a Kalmyk, and his mother, Mariya Filippovna, is Russian. In his home town, and later in the city of Kentau in Chimkent Oblast, where his family moved 4 years later, his childhood friends included Russians, Ukrainians, Kazakhs, Uzbeks, Greeks, and Koreans. And when in 1963 the Ochirovs moved to Elista, in his father's homeland, Valeriy's heart became filled with a new, profound feeling -- gratitude toward his Russian brothers, who somewhat more than three centuries back had accepted the Kalmyk people to become part of Russia. Brought up from childhood in a spirit of brotherly love and respect for other peoples, when Valeriy Ochirov became a military pilot he accepted as a behest of his heart the task assigned by the party and

government to assist the working people of Afghanistan in defending their revolutionary achievements.

The road to becoming a pilot was not an easy one for Valeriy. After graduating from the 10-year school, he went to Syzran to enroll in flight school, but he received a C in physics and believed his application would be turned down in the competitive acceptance process. He gathered together his documents and returned home. His failure was a deep disappointment, but he refused to give up his dream; for the time being he took employment as a metal trades benchworker at a motor transport enterprise. In the fall he was drafted into the Armed Forces. He was assigned to the Black Sea Fleet and learned the occupational specialty of naval antiaircraft artillery fire control instrument electrician. He then submitted a request to the command authorities for permission to enroll in a service school. He knew that he had to receive excellent performance marks in order to receive permission. And he tried very hard. Four months later his ship's command authority, noting his excellent performance at the "Ocean" maneuvers, granted him permission to travel to the service school to take entrance examinations. In August of 1970 Valeriy was accepted to enrollment at the Syzran Higher Military Aviation School for Pilots.

Ochirov has in his heart a feeling of sincere gratitude toward Lt Col Albert Petrovich Solovyev, helicopter squadron commander in the Order of Lenin Moscow Military District and holder of two Orders of the Red Star and the Order for Service to the Homeland in the USSR Armed Forces, 3rd class, under whom he served after completing service school. The squadron commander made Ochirov copilot-navigator of his own Mi-4. Valeriy flew with him more than a year and learned a very great deal from him. He learned to be precise and conscientious in all things, to work persistently to complete a job once begun, to display initiative and independence, and not to fear responsibility for his decisions.

He was promoted in his second year of active duty.

Ochirov had served as air, weapon and tactical training chief of a separate subunit and squadron deputy commander for political affairs when he was sent to a duty assignment in the Democratic Republic of Afghanistan in March 1980. Together with comrades-in-arms, Valeriy Nikolayevich provided escort to convoys carrying nonmilitary supplies, medical and food supplies under the auspices of the International Red Cross, as well as performing other missions. Such flights frequently required fortitude, courage, and selfless actions.

...On one occasion, flying in a 2-ship element with Capt Vladimir Kamaritsin, they had flown 2 or 3 kilometers parallel to a mountain ridge and then turned 90 degrees toward the mountains. Just as they reached the ridgeline Kamaritsin, who was in formation echelon left, came on the radio with an agitated voice: "Lead, take a look over to the left. What is that?"

Ochirov looked down the rocky ridge but did not immediately notice an accumulation of dark-gray shapes on the reverse slope which had the appearance of a slaughtered flock of sheep lying in their tracks. It was subsequently ascertained that these were dushman lying flat on the ground under smocks and

capes, attempting to avoid detection. There were about 50 of them all in one place, and an even larger number beyond a shallow depression.

"Obviously an entire band," Ochirov said to himself. "We must tell our Afghan comrades about them, and they can take it from there...." Just as Ochirov finished radioing the information, the dushman fired a couple of bursts from heavy-caliber machineguns at the helicopters. The situation was critical. Tracers were converging on the helicopters from all sides. It appeared that they would momentarily be piercing through the thin duralumin skin, but the aircrues did not flinch. Covering each other, at Ochirov's command they replied to the dushman fire, forcing them to hit the dirt again.

Soon Afghan infantry arrived on the scene. As was later ascertained, they succeeded in wiping out a large dushman band thanks to the assistance of the Soviet helicopter crews. About 70 men surrendered with their weapons, while the remainder were killed in an exchange of fire with the Afghan infantrymen.

V. Ochirov flew a large number of combat training sorties during the first part of his tour of duty with the limited Soviet forces in Afghanistan and was awarded the Order of the Red Star and the Afghan Medal of Military Valor. He also received an early promotion to the rank of major. At this time he enrolled in the correspondence division of the Military Political Academy imeni V. I. Lenin.

He needed that wealth of experience he had amassed in the skies over Afghanistan to train and indoctrinate young military pilots. Upon his return to the USSR, Valeriy Nikolayevich was made a squadron commander. He told the pilots about flights in mountain-desert terrain, discussed the specific features of flying at altitudes close to the helicopter's service ceiling, as well as other items. He not only told them but also gave a practical demonstration. And at no time did he permit even the slightest unnecessary relaxation of demands or unnecessary situation simplification, knowing the potential consequence of such things in actual combat.

...Once again military duty brought Ochirov to Afghanistan, where he served as a squadron commander. Relying on the assistance of his deputies, the party and Komsomol organizations, he focused personnel on exemplary performance of tasks pertaining to rendering internationalist assistance to the people of the DRA. He sometimes worked together with Afghan aviators.

At the end of November two flights of Afghan Air Force helicopters landed at their field. Ochirov went out to greet them. An old acquaintance of his stepped out of the helicopter and strode toward him -- Maj Khazrat Omar, whom Valeriy Nikolayevich had met back in 1980, during his first Afghan tour of duty. They embraced joyfully, as old friends.

"We shall be working together," Khazrat Omar, who had a good command of Russian, told him.

"That's just fine with us," Ochirov replied.

An occasion soon presented itself. Four days later a band of dushman attacked a truck convoy carrying grain and food supplies short of the town of Zara-Sharan. Afghan pilots were attempting to make the dushman break off the attack, but they were almost out of fuel and ammunition. Khazrat Omar asked Ochirov for assistance and, to make sure there was a clear understanding of the situation, suggested: "Why don't I fly along with you? I shall maintain communication with our forward air controller and show you where to go."

Ochirov had never before worked with Afghan aviation personnel in the same aircrrew. But this was an emergency situation. Losing no time, he contacted his superior by telephone, explained the situation and, receiving permission, hurried out to his helicopter. He took Capt Valeriy Korikov as wingman.

They took off. Beyond the town of Zara-Sharan plumes of black smoke hung in the air directly ahead of them, against the background of the darkening evening sky. Vehicles disabled by the dushman lay scattered here and there along a twisting road winding across saddles between low mountains. Tongues of flame were licking at many of the crippled vehicles. Establishing radio contact with the forward air controller, Khazrat Omar proceeded to pinpoint for Ochirov the locations from which the enemy was firing on the truck convoy.

Particularly heavy fire was being delivered by heavy-caliber machineguns sited in a position on a nearby mountainslope. Suddenly a machinegun crew began firing at the Soviet helicopter.

"Let's get them, Valeriy!" exclaimed Khazrat Omar.

Ochirov executed a maneuver and aggressively initiated an attack, followed by his wingman, who was to cover them as they pulled out of their attack pass. Time seemed to stand still, but suddenly the helicopter shook, as if colliding with an invisible obstacle, and for an instant was bathed in an orange glow: the rockets fired by Khazrat Omar streaked groundward with a deafening roar. The point on the ground where the dushman machinegun had just been emitting muzzle flashes erupted in flame.

As he was pulling out of his dive, Ochirov saw out of the corner of his eye that the dushman weapon position had fallen silent. Captain Korikov's helicopter pulled out of the attack right on the heels of the element leader.

Before Ochirov had brought his aircraft back to level flight, tracers were again streaking skyward toward them. One of the tracer streams, coming from a nearby shallow depression, was particularly clearly visible. Coordinating his actions with Khazrat Omar, Valeriy Nikolayevich headed right for the origin of the stream of tracers. The Afghan pilot quickly took aim, but he did not wait long enough, firing the rocket salvo from too great a range. As soon as the helicopters proceeded to break into a turn, the weapon position came to life again. Things could have ended badly if the wingman, Capt V. Korikov and weapons officer Sr Lt S. Veselov, noticing that the dushman weapon had again come to life, had not hit it with an accurate delivery of fire.

After several attack passes, Khazrat Omar informed Ochirov: "The FAC is pleased. Enemy fire has slackened." He then added: "In any case the forward air controller says we can move to a safer position."

In the meantime a 2-ship element of Mi-8 helicopters flown by Major Kabdulin and Captain Khuzin had arrived on the scene. They landed on a stretch of road cleared of vehicles, and immediately wounded Afghan soldiers headed toward the helicopters from all directions.

It was dark as the pilots headed home. They had left the battlefield only after a helilifted Afghan battalion arrived. The Afghan soldiers spent all night giving first aid to lightly-wounded fellow soldiers who had remained at the ambush site, as well as guarding vehicles and their contents.

The next morning a party province committee official arrived at the squadron, just as on that far-off day in April. But this time he was here on different business. Mir-abdullo gave heartfelt thanks to the pilots for their assistance.

Valeriy Ochirov logged hundreds of highly difficult flights in the skies over Afghanistan, flights which required extreme exertion of moral and physical energies. He always performed in a tactically knowledgeable manner in the air, acting strictly in conformity with the specific situation. The squadron commander took no unnecessary risks. He would weigh and consider all the factors before sending men off on a mission.

His comrades in arms also did a great deal to contribute to the success of the collective. These include, first and foremost, squadron political worker Capt N. Lipin, recipient of the Order of the Red Star, squadron deputy commander Maj L. Semenov, as well as his replacement, Maj A. Kapustin. By personal example they fired their men with enthusiasm to exemplary performance.

A substantial contribution toward successful performance of the tasks assigned by the command authorities was made by squadron navigator Maj I. Bazhmin, who was awarded the Order of the Red Star, by squadron deputy commander for aviation engineer service Maj A. Kosenko, party organization secretary Capt V. Ilin, flight commanders Maj B. Vlasenko, Maj S. Kuzovlev, and others. All of them have been awarded coveted government decorations.

The men were extremely pleased to hear that squadron commander Military Pilot-Expert Marksman Lt Col V. Ochirov was awarded the lofty title Hero of the Soviet Union. Two days later Valeriy Nikolayevich was in Moscow, at the USSR Ministry of Defense, where a large number of military personnel were given decorations at an award ceremony.

His name was called out. Filled with emotion, wearing his full dress uniform, wearing the Order of the Red Star and other decorations, Ochirov approached the USSR minister of defense. MSU S. L. Sokolov handed him a Certificate of the Presidium of the USSR Supreme Soviet, the Order of Lenin and a Gold Star Medal, and congratulated him on receiving this lofty government decoration.

"I serve the Soviet Union!" Ochirov replied in a firm voice, and then uttered words from the depths of his heart: he thanked the Communist Party and Soviet Government for such high praise for his military labor and stressed that the decoration he had received was at the same time acknowledgment of eminent services to the homeland by his comrades in arms, with whom he had served shoulder to shoulder, carrying out his military and internationalist duty.

This year party member Military Pilot-Expert Marksman Lt Col V. Ochirov graduated from the Military Political Academy imeni V. I. Lenin. A busy, work-filled commander's job awaits him in his line assignment. It is this officer's most cherished desire to carry out his duty to the homeland just as persistently and conscientiously as in the past, to make a worthy contribution toward further increasing the combat readiness of the Soviet Armed Forces.

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## FIGHTER-BOMBER REGIMENT COMMANDER HELD UP AS EXEMPLARY

Moscow AVIATSIIA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 16-17

[Article, published under the heading "Anticipating the 27th CPSU Congress," by Maj G. Karpenko: "Concern and Demandingness"]

[Text] The men of the aviation unit under the command of Col S. Maystrenko are responding to the decisions of the April (1985) CPSU Central Committee Plenum with redoubled zeal and effort in military labor and are endeavoring to greet the 27th CPSU Congress in a worthy manner, an event which will become a milestone in this country's development.

The following article is about the commanding officer of this unit.

As the fighter-bomber dove earthward it sliced the sky cleanly in two like a blade, instantly bandaging the wound forming in the celestial blue with its snow-white contrail.

"The regimental commander is up!" political worker Maj Ye. Golubev, who was standing next to me, uttered with warmth in his voice, his gaze fixed on the warjet which had shattered the tranquil blue heavens.

Silence then fell over the airfield; we could even hear the occasional jingling sounds of the dry birch catkins shining golden in the sun.

"People like him are what the song is talking about: 'They are born to make a fairy tale reality!'" the officer commented.

A thought came to me: we all discover in others precisely those character traits, those qualities which we want to see in them. The political worker's words made me recall my early days of flying. My musings were interrupted by an aircraft which appeared over the cutter marker.

The weather reconnaissance aircraft was soon on the ground and taxiing up to the centralized fueling station. The pilot, a man of stocky build, climbed out of the cockpit and headed toward the briefing room. He looked stern, and

even a bit uncommunicative. But first impressions can be deceiving. Colonel Maystrenko became animated as he proceeded with his weather briefing. One could now easily imagine him as the combat ace who had just roared over the airfield at dizzying speed.

"Proceed just as you did in practice. On your attack run proceed by the numbers in arming, release, and pullout, and keep alert. In the heat of battle you must keep a cool head. Think," and then he added: "The sky is unusually beautiful today. Rarely is the weather so nice in this region. There is no excuse for failing to hit the target."

The pilots, eager and enthusiastic, headed for their aircraft. One of them commented: "If we think positive, we shall succeed."

I did not have an opportunity to speak with the regimental commander that day. Following the briefing session, he headed for the tower to direct night flight operations. The next morning at dawn, one squadron was taking part in a tactical air exercise, and the commanding officer once again was right in the thick of things, inspiring the combat pilots with words of encouragement and personal example. Prior to departure for the range by the following group, Stanislav Aleksandrovich gave the pilots words of encouragement: "We frequently speak of conditions maximally approximating actual combat. It is just what the doctor ordered: solid overcast, and a real combat tactical environment. Go for it! Good for Senior Lieutenant Klimov! He did the right thing warning the group leader over the radio not to become engrossed in the attack but to watch his altitude."

Smiles appeared on the pilots' tired faces. One could sense that each one was becoming strengthened in his determination to accomplish the mock combat mission.

"Our commanding officer has a fine trait," Lt Col Yu. Andrianov said to me. "He is constantly thinking about those who tomorrow will be training and indoctrinating pilots and, if it becomes necessary, will be leading them into combat. Stanislav Aleksandrovich will always take notice of pilots possessing excellent professional and instructor abilities and will enlist them to work with the unit methods council. He sends the most capable ones to flight commander training courses."

For example, after going up on a check ride with Military Pilot 1st Class Capt S. Ivanov, Stanislav Aleksandrovich instructed him to assess his performance in the air. The officer analyzed the elements of the training sortie in a methodologically knowledgeable manner, examined the causes of his mistakes and stated how they would be corrected. In short he convincingly demonstrated that he had performed each and every maneuver not blindly but in conformity with the laws of aerodynamics and in the interests of tactics. Colonel Maystrenko made a mental note: in time Ivanov could develop into an excellent commander. And the pilot lived up to his hopes. Placed in command of a flight, he soon made it a vanguard performer.

I was told about the beginning of Maystrenko's career as a military officer. Right from the outset he made an effort to gain a thorough understanding of

all things and talked frequently with his subordinates. Once one of his deputies commented, not without design: "It is possible not to see the forest for the trees."

Stanislav Aleksandrovich replied: "A good many weak points in the proficiency of individual groups and flights were noted in the course of squadron tactical air exercises. Give some thought to what can be done to correct them!"

The commanding officer had already noted that unnecessary situation simplification was occurring in the subunits in combat flying training and that they were doing little simulation modeling of training sorties, claiming inadequate experience in utilizing aircraft systems. At the next training sorties debriefing the commanding officer stated: "You can't develop a combat pilot without combat-simulating intensity in training. It is without question necessary to observe regulations pertaining to flight operations. But one should not forget about the need to form excellent warrior qualities in our aviators. The approach to training pilots must change."

Maystrenko returned to this conversation at a party meeting. The Communists realized that their new commanding officer had a restless nature and a vigilant eye, that he knew his job inside out, and that he carefully weighed and substantiated proposals pertaining to increasing effectiveness of the training process.

This military collective is today rated as the finest in the district's air forces. The majority of pilots have a high proficiency rating, many have become master proficiency-rated, and the people in the regiment are constantly looking for reserve potential to improve the men's proficiency level. The commanding officer sets the pace in these matters.

The following appears in the documents of the April (1985) CPSU Central Committee Plenum: "The main slogans of the moment, which should become the leitmotiv of our pre-Congress meeting and of all preparations for the 27th CPSU Congress, include productive labor, unity of word and deed, initiative and responsibility, and demandingness on oneself and one's comrades." These words apply in full measure to party member pilot-expert marksman Lt Col Maystrenko. He does not rest on his laurels. He knows that twice as much is expected of him. He demands of others the same approach to their training. He has no need to idealize his fellow soldiers. He realizes that they must be accepted for what they are, but they must be reeducated and improved.

Nor does the regimental commander ignore his men's off-duty lives. Once the following incident occurred.

"Would you sign this, comrade colonel," a senior lieutenant asked Maystrenko. "I would like a residence permit for my mother-in-law."

"Do you want to wrest an elderly woman away from her familiar surroundings? And then where are we going to house your replacement?"

The officer stared at the ground. It was apparent that he was acting at somebody else's behest.

Maystrenko looked over the documents carefully.

"One of these forms is made out incorrectly," he said. "Here is a new blank form. Fill it in correctly."

It was obvious that the commanding officer was giving him an opportunity to give some more thought to his decision.

After the senior lieutenant left, the regimental commander said to the deputy commander for political affairs with unconcealed displeasure: "He is young. His life and career are just beginning. He will be changing duty posts a good many times, and yet he is trying to hold on to this room.... We are falling short in our work with the men."

He immediately suggested that a plan be drawn up for indoctrination measures to be conducted with the young officers and the members of their families, and that the activities of the women's council be stepped up.

I finally met the regimental commander two days later in his office. I learned from my conversation with him that Aleksandr Konstantinovich, his father, had served in the border troops and had fought in the Great Patriotic War. And he had passed on to his son the obligation to guard the sacred borders of the homeland.

"I remember back at service school," related Stanislav Aleksandrovich, "The flight commander and I were instructed to lay out the takeoff and landing setup: we were to mark off the takeoff heading taking wind direction into account and lay out the landing T on the field. I felt a sense of pride, as if I were performing a task of national importance."

It is most probably at that time that Maystrenko developed deep inside an interest in and taste for organizing and conducting flight operations. Now he deals with this practically every day, but that first sensation has not become dulled over the years but on the contrary has become stronger, motivating him to plan and carry out flight operations in an optimal manner. He felt particular enthusiasm during the most recent tactical air exercise. The regiment received a high mark. A good deal of the credit for this, of course, goes to party member Col S. Maystrenko, bearer of the Order for Service to the Homeland in the USSR Armed Forces, 3rd Class.

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## FIGHTER-BOMBER SQUADRON AVIATION ENGINEER SERVICE CHIEF

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 22-23

[Article, published under the heading "Pre-Congress Competition Leaders," by Col V. Lebedev: "The Airfield At Dawn"]

[Text] A thick, bluish haze had been hanging over the airfield all morning. It did not faze the aviators, however. The higher the July sun climbed above the horizon, the better visibility was becoming. Therefore preflight preparation of aircraft was in full swing on the field. As a rule at these times preceding flight operations there is also plenty of work for the aviation engineer service specialists headed by Capt A. Gurov. Aleksandr Gennadyevich is a capable engineer-leader and a skilled organizer of the military labor of aviation personnel. His subordinates consider him to be a competent officer, a strong-willed and demanding boss, a sensitive and considerate individual.

He is not yet 30, but he has already had considerable experience in maintaining highly complex aircraft systems, in training and indoctrinating flight technical maintenance unit chiefs, aircraft technicians and mechanics. Many of them today have the reputation in the fighter-bomber squadron of being acknowledged experts at their job. Nevertheless Aleksandr Gennadyevich is well aware of the fact that each needs an individual approach and special attention. He is aware of and considers this fact in his daily activities.

Aleksandr Gennadyevich has very strong character traits -- composure and purposefulness, diligence, and devotion to military duty. He is thoroughly familiar with the aircraft's design and structure, its complex "innards" and armament.

This officer is a graduate of the Achinsk Military Aviation Technical School. He worked as a fighter aircraft technician. He worked hard mastering his military occupational specialty, gaining thorough knowledge of the complex aircraft system, sometimes staying late at the airfield until he completed his scheduled volume of work. This young officer frequently greeted the dawn at the airfield.

In time party member Gurov's professional diligence and zeal were reflected in concrete results. He gained the solid reputation of being one of the squadron's top maintenance specialists, and the fuselage of his combat aircraft bore the colorful "Excellent Aircraft" triangle.

Soon additional success came -- at a socialist competition performance review, the commanding officer commended officer Gurov for the fact that his aircraft had achieved the greatest number of flying hours logged, and he was awarded a challenge pennant. For the first time Aleksandr Gennadyevich was the winner of competition among technicians. He was also pleased by the fact that the unit command authorities gave their approval and support to his application for enrollment at the Kiev Higher Air Engineering School.

He studied hard for the entrance exams. Frequently, after returning home from flight operations, he would sit at his textbooks late into the night. Sometimes he got very little sleep. Quite frankly, there are many who could not stand up under such stress. But Gurov stood firm. It is for good reason that his fellow soldiers called him a person with a Siberian character.

Upon completing his studies, the young aviation engineer expressed the desire to be given a duty assignment in the Far East. He had heard a great deal about this harsh but beautiful region, about the Ussuri taiga and the majestic Amur. But he had never visited the region.

In the Red-Banner Far East Military District air forces personnel section, Gurov learned that he had been assigned to the famed Orsha Red-Banner Order of Suvorov, Kutuzov, and Aleksandr Nevskiy Fighter-Bomber Regiment, the men of which had trod the path of combat glory. The pilots, engineers, technicians, and mechanics of this unit had performed a great many exploits during the Great Patriotic War. The rich combat traditions and heroic deeds of the men of this regiment place a heavy obligation on the present generation of Orsha men. Everybody who visits this famed regiment, after meeting the commanding officer and his deputy commander for political affairs, without fail visits the combat glory room, where one finds on display priceless mementos depicting the courage and staunchness of aviation personnel in the struggle against the fascist invaders.

Everything Captain Gurov saw there made a strong impression on him. One is hard put to read without feeling emotion the time-yellowed archival documents, to view the faded photographs and clippings from the military press, and letters from the front to family and loved ones.

Aleksandr Gennadyevich read the text on one of the displays. Dated 30 November 1942, it was a letter from squadron deputy commander Sr Lt Dmitriy Simonov to his wife. He told her about his most recent aerial engagement, in which he had lost his aircraft. He wrote with pain and sorrow: "...My 'winged swallow' had seen a great deal in the flaming skies. Sometimes I would return with dozens of bullet holes and considerable damage. It seemed that the aircraft would never again go up and meet the enemy! But the skilled hands of our engineers, technicians and mechanics nursed it back to health, and I once again rode it off into savage combat..."

Captain Gurov's interest was also piqued by an incident from the regiment's experience at the front.... It happened during the first month of the war, when Soviet forces were compelled to withdraw eastward under hammering assault by superior Hitlerite forces, which had perfidiously attacked our country. The situation was serious. Enemy aircraft constantly "hovered" over the airfield, and it was shelled by enemy artillery. Casualties and equipment losses were mounting daily. The regimental commander, Maj A. Kulinich, received orders to move operations to the Bobruysk airfield. Learning that the senior engineer had been killed, he summoned squadron engineer military technician M. Shcherbatenko.

"You are taking over the regiment's aviation engineer service," the commanding officer stated emphatically. "There is no time for reflection. The enemy could arrive at any moment. We shall be taking off in 1 hour, and you will organize the redeployment of ground facilities and equipment...."

Working together with the other subunit aviation engineer service supervisory personnel under the most difficult conditions, party member Shcherbatenko, overcoming all difficulties and all adversities, succeeded in accomplishing the task and providing the support for the sorties flown by the regiment's aircraft to fight off enemy attacks.

The performance by the regiment's engineer-technician personnel in the harsh war years was for Captain Gurov a vivid example of skilled organization of servicing and maintenance of modern aircraft systems. His notebook contains entries on the most typical incidents connected with the combat deeds of the unit's engineer-technician personnel during the war years. This officer utilizes them both in talks with young aviation engineer service specialists when they first report for duty with the squadron as well as during preparations for flight operations and during tactical air exercises. They are a great help in developing courage and initiative in aviation personnel and help aviation engineer service specialists knowledgeably service and maintain the complex combat hardware.

One can state with complete assurance that the subunit's deputy commander for aviation engineer service plays a major role in the fact that the squadron's combat aircraft are presently being maintained in an exemplary condition. And party member Gurov also shares the credit for the fact that the squadron scored excellent on the basis of socialist competition results in the first period of training.

Aleksandr Gennadyevich succeeded in establishing a fine body of activists, containing his best assistants -- chiefs of flight technical maintenance units, servicing groups, technicians and other highly-qualified specialists, who help him incorporate all new and advanced practices into equipment servicing and maintenance and to improve the technological process of aircraft maintenance. They include flight technical maintenance unit chief Sr Lt A. Sholudko -- a vigorous, knowledgeable officer with initiative. He is concerned not only with the subunit's combat readiness but also organization of airfield services and amenities and maintaining aircraft parking areas and aviation engineer service specialist work stations in a state of exemplary order.

Or take Sr Lt V. Bukalo. Resting on his shoulders is the job of equipping the classroom and the place where technical documentation is drawn up and stored. He has put together a great many various display stands, diagrams and posters for the aircraft parking ramp areas.

At the most recent end-of-period performance evaluation, the shelter for the aircraft hull-numbered 17 was adjudged best in the squadron. It is serviced by Sr Lt V. Vladimirov. Three years ago he graduated from the Riga Higher Military Aviation Engineering School imeni Yakov Alksnis. He is presently an aircraft technician. The Excellent Aircraft symbol adorns the fuselage of his fighter-bomber.

"When speaking of our efficiency innovators," states Captain Gurov, "one must mention WO Yuriy Komiz, a purposeful and persistent innovator and expert at his job. At his suggestion, specialists mounted a winch on a hydraulic jack cart. The benefit was immediately apparent. Now a single technician or mechanic can quickly take the hydraulic jack off and put it back on. Yuriy displayed a good deal of ingenuity, setting up regular selector-switch communications between the squadron aviation engineer service control center and the flight line...."

Nevertheless things do not always go smoothly in the collective, as they say. Indoctrination of aviation personnel is a complex, multifaceted process.

Officer G. Romantsov, for example, is an aircraft technician in this squadron. He knows his job duties fairly well and is a specialist 1st class. Closely observing his performance, however, Gurov noticed that sometimes after arrival at the flight line the technician would spend more time on his personal affairs than on job-related duties. And once he even showed up late for flight operations.

"Steps must be taken," the engineer decided. The squadron commanding officer, his deputy for political affairs, and the flight commander talked with the aircraft technician. Captain Gurov also called Romantsov in on several occasions. He spoke with him in a frank and paternally strict manner. Subsequently the young specialist's conduct was discussed at an officers' meeting. A fair and impartial discussion was held. The senior lieutenant's fellow officers voiced many complaints about him and pointed out his mistakes and shortcomings. In short, the collective led by Captain Gurov did everything it could to help this technician. Now things are going much better with Romantsov, and he has plenty of people in the squadron against whom to measure his performance -- outstanding individuals who devote their entire energies to maintaining aircraft equipment in a continuous state of combat readiness: Capt A. Kucherenko, Sr Lts A. Kononov, A. Kalinin, G. Valentey, S. Prosvirin, and many others.

Aleksandr Gennadyevich, as head of the subunit's aviation engineer service, is a reliable support and closest aide to the commander in maintaining firm observance of regulations and a healthy microclimate in the collective. And this promotes in large measure high-quality accomplishment of the combat and

political training plan targets of the aviation personnel, who are preparing to greet in a worthy manner the forthcoming 27th CPSU Congress.

The sources of success in party member Gurov's job lie in his forthright and honorable performance of job-related duties and in his party responsibility as the squadron's aviation engineer service leader-officer. He sees his engineer's calling in the present period of scientific and technological advance in an innovative attitude toward his job, for the ability to keep pace with the busy rhythm of life in the collective he leads is a most important quality of the leader-Communist. And Captain Gurov is just such a leader -- a worthy successor and continuer of the fine heroic traditions of the combat veterans of the war years.

...The airfield has its own intense rhythm of life. Aircraft take off and land. Squadron deputy commander for aviation engineer service Capt A. Gurov is one of the group of aviation engineer service specialists busy readying a fighter-bomber for its next training sortie. As always, he is in the thick of events, wherever success of a future flight is being forged out, wherever all new and advanced elements connected with further increasing the subunit's combat readiness are born. His airfield dawns are continuing and accumulating in the fine deeds of the Orsha aviators.

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## BREAKING-IN OF FIGHTER-BOMBER GROUNDCREW TECHNICIAN

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 26-27

[Article, published under the heading "Pre-Congress Competition Leaders," by Maj Yu. Tkachenko: "Enamored With the Melody of Turbines"]

As dawn began to appear in the east, the airfield came alive with the voices of ground crewmen and the throaty roar of tractors, jet engine starter trucks, and fuel tankers. The combat aircraft turbines were still silent, but the flight operations day was already gathering momentum. Aircraft technicians, those tireless aviation workers, were inspecting with their customary efficiency the tangles of piping and flange connections under the inspection covers and were performing the necessary readying procedures. Preflighting was almost finished, and the combat aircraft stood poised and silent in anticipation of the day's training sorties.

I have known Lt V. Vasilchenko, one of the aircraft technicians, quite a long time. He is a competent, knowledgeable specialist, a cheerful, sociable individual, with a soft, captivating smile. Viktor, just as his comrades, services his aircraft with great zeal and enthusiasm, with that keen interest which is typical of persons who love their job.

If one mentally traces an aircraft technician's path during the course of a flight operations shift and depicts it schematically from the removal of protective covers to that moment when they are once again placed on the combat aircraft's "shoulders," which are still warm from the enormous airspeeds, this route of movement will run in intricate zigzags, knotting in numerous loops around the aircraft. Straighten the line out, and it will stretch out for kilometers.

One frequently hears the statement that every pilot loves the sky, and this is unquestionably true. But I should like to add something to this. What about the aircraft technician? Can one even conceive of this airfield worker without love for the sky and for aviation? Most assuredly not. And this love is grounded on diligence, pride in his job, confidence, and the awareness of the fact that he is essential here at the airfield....

Viktor Vasilchenko had been fascinated with machinery even prior to entering military service. The fact is that this young lad liked spending hours on end at a machine tool, using an expertly ground cutting tool to compel compliant metal to yield to his will, and he liked, for example, building a radio receiver or making some intricate electrically-operated device to put to work in the home. It was strange, however, that no matter what Viktor designed, no matter what his curious young mind created, he endeavored to link everything to aviation, to aircraft of specific types. Of course many of his ideas were infused with a lack of sophistication, but his parents could see that their son liked everything that had to do with aircraft. Nobody took his interest seriously, however: there were no professional military men in the Vasilchenko family. "When he grows up, he will be a worker, like me," his father assumed.

But life took its own twists and turns. As the years passed, the youth became even more powerfully drawn toward aviation and began to believe in his dream even more strongly. Finally, after a long talk with his father, 10th-grader Vasilchenko submitted a request with the local military commissar to take the entrance examinations for military aviation technical school. His request was approved.

...One warm summer morning an express train pulled out of the station. Lieutenant Vasilchenko was bidding farewell to those familiar surroundings he had known from childhood. He sat pensively by the train window, recalling his years of schooling, his comrades and teachers. The young airman remembered in particular the parting words spoken by the school's commanding officer as he gave him his officer's shoulderboards: "You are now an officer. Hold this title high, be proud of it. May military labor become a joy for you...."

Viktor was not afraid of facing difficulties. Accustomed to labor since childhood, he was willing to do the work of two men, as they say. Nevertheless he was nervous: how would his new outfit take to him, and how would things go?

Incidentally, Lieutenant Vasilchenko's officer career began with something less than success. When he was first entrusted to assume the responsibility of readying an aircraft for a training sortie, he was nervous and flustered. He wanted to do the best job possible, but things just did not go well. In addition to all else, the young technician had once heard a comment made about him by the squadron engineer and flight technical maintenance unit chief: "If you don't keep a close watch on him, he'll mess things up!"

These words cut him to the quick. He became depressed. Doubt sprang up in his mind: could it be that he had made a mistake not right now, while independently servicing his first combat aircraft, but much earlier, when he had decided that his calling was to be a combat aircraft ground specialist?

His older comrades thought otherwise. The squadron engineer, the flight technical maintenance chief, and the other squadron party members kept close watch on the development of this young officer, giving him help and assistance, especially the squadron deputy commander for aviation engineer service, officer V. Ivanov. This experienced mentor had observed Vasilchenko

at work on numerous occasions. He noted that whenever the aircraft's onboard systems were working right, things went well with the young technician. But the lieutenant would become flustered if any of the systems developed a problem. The engineer worked persistently to teach him the skill of looking for and finding the causes of a malfunction and the ability to analyze the complex processes taking place in aircraft systems and to reach specific conclusions on the basis of this analysis. Gradually Vasilchenko amassed experience, and this brought him greater confidence in his work performance. As time passed he developed a habit: never to walk away from an aircraft without being satisfied that it is in perfect working order and stands ready to take to the air.

Once, when checking out his aircraft on a preliminary inspection day, Viktor discovered that the brakes were not fully releasing. This was a serious malfunction. It could lead to undesirable consequences during landing. Analyzing the cause of the malfunction, he established that one of the brake system valves was not working. Immediately reporting his findings to the squadron engineer, Vasilchenko set to work. Soon the problem was corrected, eliminating the potential cause of an air mishap.

This first commendation by his squadron commanding officer was followed by others. And the more firmly rooted the lieutenant's professional expertise became, the more acutely he felt the need to achieve even more. Viktor set a goal for himself -- to boost his proficiency rating. And he accomplished his goal.

...The pilot walked up to the aircraft. Receiving the report that the aircraft was ready, he inspected it and climbed into the cockpit. Lieutenant Vasilchenko stood by, assisting and advising as needed. Finally they fired up the engine, and the mighty warjet taxied out to the active. The fighter-bomber lifted off the runway, and the aircraft technician, as if spellbound, gazed at the bright point of light as it disappeared into the distance. At this moment one could read affection, pride, and joy at a job well done in the lieutenant's eyes. And there was good reason to be proud, for it was his hands which on the previous day had probed and felt the many little screws, wires, components and assemblies of that rumbling arrow out there sparkling in the sun!

The aircraft was no longer in sight. He could just hear the distant rumbling of the turbine somewhere out there, a sound which to Vasilchenko was a striking, pleasant melody. He was enamored with this melody: it had become a unique hymn of his soul, the culmination of difficult terrestrial labor, which is so essential to the pilot engaged in mock combat.

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## WARTIME GROUND-ATTACK MISSIONS REMINISCENCES

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 30-31

[Article, published under the heading "Years, People, Deeds," by Lt Col (Res) I. Gusev: "'Flying Tanks' Attack"]

[Text] These were emotional moments. Veterans and young Pioneers, kneeling down, froze in mournful silence before the memorial on Mamay Hill: they were paying tribute to the memory of those who had died a hero's death for the good of the homeland.

Pilots, engineers, and technicians of the former 208th Ground-Attack Regiment, which had received its baptism of fire here, in the skies over Stalingrad, had come to the hero-city for their regular reunion. Georgiy Ivanovich Amelin was one of these veterans. Gazing at the trembling tongue of the Eternal Flame, he suddenly felt anew the ominous breathing of those distant battles. Scenes of the unforgettable past arose in his mind's eye....

Upon graduating from the Balashov School for Military Pilots, Amelin had transition-trained onto the Il-2. And he proceeded to go into combat on this "flying tank."

One day in November the 43rd Pilot Group, led by Sr Lt S. Gulayev, was assigned the mission of hitting an enemy mechanized column. This would be Amelin's first combat mission.

"Stay with your leader, and keep your eyes open for enemy aircraft," counseled the squadron commander, Capt A. Gerasimov, as parting words to the young pilot.

The ground-attack aircraft had scarcely crossed the line of contact when several Messerschmitts popped out from behind the clouds. The Soviet fighter escort immediately proceeded to keep them busy, preventing them from reaching the ground-attack aircraft. Within a minute an Me-109 was on fire and smoking. A second fascist aircraft, losing altitude, then withdrew from battle.

In the meantime the ground-attack aircrues spotted the enemy column proceeding along a dirt road. Tanks with crosses painted on their sides, armored personnel carriers, gun tractors, and covered trucks carrying infantry were moving along the road, raising heavy clouds of dust. The force leader gave a command, and the ground-attack aircraft, shifting formation, swiftly commenced the attack. Spotting the threat, the fascists opened fire with antiaircraft guns and machineguns, attempting to impede aimed ordnance delivery. But nothing could stop the Soviet pilots, who were filled with courage and daring. Within 30 minutes the mechanized column had been obliterated.

Upon their return to the airfield, Georgiy Amelin was warmly congratulated by his fellow soldiers on his baptism of fire. With this mission the young combat pilot commenced writing his combat biography and making his own personal contribution to vengeance against the enemy.

There were many experts at air-ground strikes and genuine air aces in the regiment -- Sergey Batinkov, Aleksandr Burak, Nikolay Zaytsev, and Aleksey Yakovlev. Subsequently they became Heroes of the Soviet Union. Squadron commander Aleksandr Gerasimov also enjoyed incontestable respect and authority.

Taking in the experience and know-how of these famed pilots, Amelin was feeling increasingly confident in combat, as if spreading his wings. It was not long at all before he, a recent aviation school graduate, was characterized in the regiment as a bold, intrepid combat pilot, capable of performing difficult missions. The Communists accepted Georgiy into their ranks. Soon he was commanding a flight. A month after that regimental commander Lt Col S. Markovtsev, acting on behalf of the Presidium of the USSR Supreme Soviet, awarded him his first decoration -- the Order of the Red Star -- before the assembled regiment.

"Your first, and I am sure, not your last," Capt Gerasimov said to Amelin as he congratulated him on earning the decoration.

The squadron commander proved to be right: over the next 6 months Amelin, who had displayed courage and heroism in combat, was awarded the Order of the Patriotic War, 1st Class, and was twice awarded the Order of the Red Banner. He had become a mature, highly proficient pilot, and he had undergone tough conditioning in the skies over the battlefield.

In the bad weather which prevailed in the fall of 1943 and winter of 1944, Amelin repeatedly led ground-attack forces on missions, delivering sure strikes on important targets.

A mission to the Dniester in July 1944 demanded of Georgiy particular skill and courage. The pilot was given the mission to knock out a river-crossing site which the Hitlerites had set up. In addition to being a linear target, the fascists were defending it with antiaircraft weapons. Judging by the density of fire with which they greeted our reconnaissance pilots, there were at least 3 antiaircraft batteries in the area of the crossing site. And enemy fighters were constantly circling in the sky overhead.

Amelin decided to outfox the enemy. Taking off at dawn, he flew far behind enemy lines and, reversing course, headed toward the target at low level from the west. The antiaircraft gunners were not expecting this. By the time they recovered from their surprise, the Soviet pilot had dropped his bombs on the crossing site. He hit the target with accuracy.

The Hitlerites proceeded to open fire on the single ground-attack aircraft with antiaircraft guns. Following this, fighters attacked Amelin's aircraft. But this time as well Georgiy was saved by his combat skills. After he landed and taxied to the ramp, mechanic Sgt Vasiliy Romashin gasped in amazement: the Il-2 was riddled with flak holes.

Another extremely difficult mission was flown one day in November 1944, when a strike was to be delivered on a rail center located south of Uzhgorod. Several enemy trains were standing in the yard, in the process of unloading. Flying in mountains is always a difficult test. And on this occasion the weather added to the problems: there were low clouds. In these weather conditions fighters could not escort the ground-attack aircraft. The Il aircrews had to count on their resources. Amelin, who was now a squadron deputy commander, was well familiar with the fighting abilities of his men. On more than one occasion he had led pilots through mountain defiles and gorges on combat missions. He was confident that they would display outstanding skill on this occasion as well.

The red-starred aircraft turned to the target heading. Railyard structures appeared below. At this moment the alarmed voice of aerial gunner Sr Sgt Viktor Kozlov came over the intercom: "Messerschmitts 9 o'clock high!"

Amelin looked up to the left. A pair of Messerschmitts had emerged from a cloud and, utilizing their altitude advantage, were approaching in a diving attack. The aircrews of Lt G. Platonov's flight fought off the attack and themselves set after the adversary. In the meantime Amelin and his wingman, Jr Lt G. Dzhakupov, launched rockets at antiaircraft guns which were firing at the strike aircraft. A minute or two later they began "working over" a rail consist which was being unloaded.

Having expended their bombs, Amelin and Dzhakupov engaged the Messerschmitts, and the second pair of Il-2s took a run at the target. In this manner, exchanging roles, the ground-attack aircraft, one pair after the other, heavily attacked the concentrations of enemy equipment and personnel.

On the way home the Ilyushins suddenly came under fire by antiaircraft guns deployed at a river crossing. It took Amelin a moment to realize what was happening. His aircraft shook as if in a fever. "We're hit," the pilot said to himself with alarm. "Are we burning?" he asked his gunner. "No flames, skipper. There are some holes in the fuselage and wing," reported Kozlov.

The shaking gradually abated, but oil began to cover the windshield. There was a sharp odor of gasoline. "The fuel line has been hit," Amelin realized.

In the meantime the aircraft was losing altitude. The other pilots realized that something had happened to the lead aircraft. Jr Lts N. Zatylkin and M.

Sorokin took up position alongside him. It was as if they were supporting their commander's flak-riddled aircraft with the wings of their own aircraft. Jr Lt N. Makhlin flew top cover. Now the group was being led by Platonov, with Dzhakupov in the customary wing position.

These precautions were well taken. As they passed over the line of contact, the strike aircraft were attacked by two Focke Wulfs. Encountering well-coordinated fire by the aerial gunners, they broke off pursuit. 15 minutes later the field airstrip came into view. Lieutenant Amelin landed, mission accomplished.

After this memorable day, the intrepid pilot went up repeatedly to attack the foe. He flew his last combat mission, his 171st, in the skies over Czechoslovakia.

Hero of the Soviet Union Lt Col (Ret) G. Amelin, recipient of seven combat decorations, lives in Moscow. Head of his regiment's veterans council, he does a great deal of work in the area of patriotic indoctrination of youth. Georgiy Ivanovich is proud of the fact that many of the youths to whom he has related the combat deeds of the men of his regiment have made the decision to become military pilots. Dima, the combat hero's grandson, a 7th-grader, also dreams of becoming a pilot.

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## SELECTING CADET JUNIOR COMMAND PERSONNEL AT SARATOV PILOT SCHOOL

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 30-31

[Article, published under the heading "Military Educational Institution Affairs," by Military Pilot 1st Class Col A. Shlykov and Lt Col V. Khomutov, psychophysiological laboratory head: "Who Will Be a Lower-Echelon Commander?"]

[Text] The process of selecting applicants to flight schools is completed. The selection boards have worked hard, choosing the most worthy secondary-school graduates on the basis of moral qualities, professional aptitude, abilities, knowledge, and health. The next task facing the command authority of the newly-formed cadet subunits is to determine candidates for junior command personnel slots. This is without question a very important matter, the correct resolution of which determines in large measure how the new military collective will shape up and how successful its influence will be on the training and indoctrination of future defenders of our country's peaceful skies.

The main difficulty lies in the fact that the cadet battalion command authorities have relatively little time in order to examine in detail individual psychological features and to determine the personal qualities and organizing abilities of each pilot cadet. But junior commanders must be appointed within a few days after the order announcing enrollment of cadets is published. Several dozen persons must be selected -- from drill squad leader to company sergeant major.

The practice of recent years, when primarily persons who were enrolling at our school following service in the ranks of the USSR Armed Forces were appointed to these slots, did not work well. Not all candidates possessed the requisite organizer abilities or possessed an adequate level of preparation.

The Saratov Higher Military Aviation School for Pilots has now amassed certain experience in selection of junior command personnel of cadet subunits. We do this in three basic stages.

At the first, familiarization stage, commanders study the personal records of secondary-school graduates who will be arriving in July at the school for enrollment procedures. Unfortunately this information is rather scanty. And

all this because the character references obtained at school, one's place of employment or Soviet Army service unit are frequently written in a perfunctory manner or without adequate knowledge of the individual in question. Quite definite conclusions can be reached, however, even at this stage.

The second stage is the principal one. This is the period in which the entrance examinations are taken. The limited time available makes it necessary to find fast methods which will help pinpoint candidates for junior command-personnel slots. They are selected by the commanders of cadet platoons and companies, observing the candidates' conduct. Conducting interviews with them, they determine organizer abilities and leadership qualities, especially in those who enjoy the respect of their comrades. The command authorities are greatly assisted in this critical task by junior command personnel among the upperclassmen who are enlisted to give assistance during this period. Their observations are very important. Housed in the same barracks with the applicants and being together with them at the medical board and entrance examinations, they obtain very important information on the specific features of candidates' behavior.

The results of studying the future sergeants obtained by the platoon and company commander as well as junior command personnel are turned over to the school's psychophysiological laboratory. Of course this information is far from complete, since there is little time available to study the candidates, and not all cadet platoon and company commanders possess the requisite skills and experience. It is evidently for this reason that they sometimes rely on intuition and are guided by subjective criteria in making junior command personnel appointments.

A large quantity of candidate investigation materials is amassed in the psychophysiological laboratory in the process of candidate selection. These materials make it possible to do a better job of selecting junior command personnel. The quantity of these materials increases year by year, and their value is unquestioned. The principal task which is accomplished in performing psychological profiling is determination of the flying aptitude of a future pilot. In our opinion good pilot aptitude alongside strong moral fiber constitute the main criterion for appointment to a junior command personnel slot. In addition, a very important role is also played by the relationship between pilot aptitude and military-professional directional emphasis, which consists in a strong, stable desire to master the profession of military pilot. A candidate's singleness of purpose is the next criterion for junior command personnel selection. This is revealed in a well-structured and thought-out interview. There is also one more criterion for determining commander qualities: knowledge of a person's structural individual-psychological characteristics.

Unquestionably a junior commander should be emotionally stable, conscientious, determined, staunch, composed, self-controlled, with initiative, bold, tenacious, and purposeful. The requisite qualities can be predicted with a fair degree of accuracy with the aid of SMIL methods and the 16-factor "directional emphasis" questionnaire.

The MIOM method provides information on the specific features of a candidate's thought process. This is the fourth criterion for determining commander qualities.

A larger number of cadets are profiled than are needed for filling command slots. Performing simple mathematical processing of the resulting data and obtaining an aggregate appraisal mark, the psychophysiological laboratory presents clear-cut recommendations to the command authorities.

The third stage consists in verifying effectiveness of the selection. The activities of the junior command personnel, their command and leadership qualities, and their ability to unite and organize their subordinates are carefully studied over a period of 2 or 3 months. Of course the complexity of the tasks facing them is also taken into account. In particular, so-called marginal status leaves its imprint on the job performance of junior commanders. This means that the individual is positioned, as it were, on the boundary of two or more social groups but is not accepted by any of them as a full-fledged member.

The marginal status of the junior-level commander determines the conflictive nature of his position. The fact is that appraisal of the position of the junior commander by the higher-echelon command and his subordinates differs. This is why in appraising his performance we based our judgment not only on the assessment "from above" but also considered the assessment "from below." Thus the opinion of platoon and company commanders on the quality of performance by junior commanders has become more objective and valid than was the case last year, and fewer junior commanders have been removed from their position for various reasons.

The difference between average marks "from below" on a five-point scale in 1981, when we were taking initial steps toward working out a methodology of selecting junior commanders, and average marks "from below" (assessment of rank-and-file cadets) in 1983 was 0.95 points. In our opinion this difference indicates that we are proceeding in the right direction.

Although our reliable assistants -- junior command personnel -- sometimes do not possess a great deal of experience, they do possess tireless energy, enthusiasm, and know their subordinates well. Together with experienced instructors and command personnel, they comprise that fusion which gives the necessary strength to the corps of cadets.

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## EARLY RECIPIENTS OF HONORED MILITARY PILOT TITLE LISTED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 32-33

[Interview, published under the heading "Our Interviews," with Hero of the Soviet Union Col Gen Avn Grigoriy Ustinovich Dolnikov by AVIATSIYA I KOSMONAVTIKA correspondent: "First Honored...."]

[Text] An Ukase of the Presidium of the USSR Supreme Soviet was made public on 19 August 1965, on the award of the honorary title "Honored Military Pilot USSR" and "Honored Military Navigator USSR" to a group of Soviet military pilots and navigators.

The very finest aviators were awarded this high honor for especially meritorious achievements in mastering new aircraft, in boosting the combat readiness of Air Forces units and subunits, for skilled training of highly-qualified flight personnel, and for long years of accident-free operations. Many of the recipients, when defending our homeland during the past war, had displayed courage and heroism in the struggle against the fascist invaders, had become acknowledged Soviet air aces, and had rightfully earned universal respect and the love of their people.

In connection with the 20th anniversary of this event, a correspondent from our journal met with Hero of the Soviet Union Col Gen Avn Georgiy Ustinovich Dolnikov, deputy commander in chief of the Air Forces for military educational institutions, a combat veteran of the Great Patriotic War and one of the first Honored Military Pilots USSR.

[Question] Comrade Colonel General, what other Air Forces pilots were the first to be awarded this honorary title?

[Answer] The distinguished list of Honored Military Pilots USSR and Honored Military Navigators USSR is headed by outstanding representative of military aviation, genuine aviation innovators, who made a weighty contribution to the operational adoption of jet aircraft and increasing the combat readiness of the military aviation units under their command. Many of them are combat veterans, who skillfully pummeled the vaunted Fascist aces in savage aerial battles and delivered devastating strafing and bombing strikes on enemy targets. Today they are happy to share their experience and know-how with

young aviators, teach them to fly and win in combat against a powerful and cunning adversary, and are passing on to these young aviators the relay baton of courage, flying skill and heroism. One of those who 20 years ago was awarded this lofty title is Hero of the Soviet Union Col Gen Avn Vasiliy Vasilyevich Reshetnikov, noted expert in long-range combat missions deep behind enemy lines and in delivering accurate strikes on important enemy industrial and military installations. On multiple occasions Vasiliy Vasilyevich flew his famed Il-4 from his home field in Moskovskaya Oblast to Berlin, the Fascist lair. This intrepid pilot logged hundreds of difficult, important missions. At the beginning of the 1960's party member Reshetnikov accomplished a record-setting flight on a long-range bombing sortie, covering an enormous distance nonstop. This outstanding flight was reported by the newspaper PRAVDA. I frequently get together with Vasiliy Vasilyevich these days. He is still alert and vigorous, ably passes on his wealth of experience to the present generation of aviators, takes active part in military-patriotic indoctrination of youth, and serves as deputy commander in chief of the Air Forces. Hero of the Soviet Union Col Gen Avn Aleksey Nikolayevich Katrich also joined me in being awarded the title Honored Military Pilot USSR on that memorable day in August 1965. He is a fighter pilot, who fought from the very first days of the Great Patriotic War. On 11 August 1941 Lt Aleksey Katrich, running out of ammunition while repulsing an enemy air attack on Moscow, prevented a fascist bomber from reaching the capital, destroying it with a high-altitude ramming. After the war, upon graduating from the military academy, Aleksey Nikolayevich commanded aviation units and combined units and held high posts in the Air Forces and the Ministry of Civil Aviation. Colonel General of Aviation Katrich is presently serving as deputy commander in chief for air forces of the Joint Armed Forces of the Warsaw Pact member nations. Aleksey Nikolayevich clearly understands that a guarantee of future victories in the air lies in the excellent training of pilots. He therefore works persistently, generously giving of his time and effort, to teach young aviators in the heroic examples of our courageous combat pilots and shares with them his wealth of combat experience. I should note that General Katrich has trained a large number of highly-skilled aviation cadres. In his daily activities he inspires his colleagues with his energy and conscientious attitude toward the job at hand, organizing it in such a manner as to obtain maximum results from every training class and drill, from each and every flight operations shift and tactical air exercise. The 32 officers and general officers who were the first to be awarded the title Honored Military Pilot USSR and Honored Military Navigator USSR included regimental deputy commander for political affairs Lt Col Valentin Vasilyevich Molin. In those years he was considered in the Air Forces not only to be a first-class pilot but also a skilled officer-political worker and a wise mentor and indoctrinator of staunch and courageous combat pilots who are totally dedicated to the Soviet homeland. Party member Molin was awarded two decorations for successful mastery of combat equipment and for valor displayed thereby.

[Question] Who was the first person to be awarded the Honored Military Pilot USSR honorary badge?

[Answer] That is an interesting question. The name of Aleksandr Ivanovich Babayev, Hero of the Soviet Union, twice recipient of the Order of Lenin,

holder of the Order of the October Revolution, 5-times recipient of the Red Banner, twice recipient of the Order of the Patriotic War, 1st Class, and 4-times recipient of the Order of the Red Star, plus other government decorations, is well known in the Air Forces, as he is throughout the country. In the postwar period he devoted a great deal of knowledge and effort to the development of Soviet jet aviation and expansion of its combat capabilities. On numerous occasions party member Babayev demonstrated skilled flying technique at air reviews in the sky over Tushino. In particular, he made an important contribution toward the mastery of complex jet-fighter advanced formation flying techniques. It was Aleksandr Ivanovich who was awarded the first Honored Military Pilot USSR badge. It is a pity that he died of a serious illness at the very prime of his creative energies.

[Question] Tell us, please, who today is carrying on in a worthy manner the traditions of Soviet air aces and is the pride of our Air Forces?

[Answer] Up to this point I have been speaking for the most part about war veterans and their combat exploits, and this is understandable. During the war they went through a harsh school of courage and flying proficiency and demonstrated with combat deeds their boundless devotion to the socialist homeland and the bright ideals of the Communist Party -- the tested and wise organizer of the Great Victory over German Fascism and Japanese militarism. Honorary titles are awarded each year, however. And among those who have been awarded this high honor in peacetime, I should like to mention such noted pilots as Col Gen Avn Valentin Yepifanovich Pankin, Col Gen Avn Anatoliy Fedorovich Borsuk, political worker Col Anatoliy Fedorovich Odnolko, Maj Gen Avn Pavel Danilovich Novitskiy, navigator Col Vladimir Nikolayevich Lunin, and others. Honored Military Pilots and Navigators are the pride of our military aviation, valuable assets, and a shining model to emulate. Our winged youth measures its performance against these famed aviators and takes an example from them. The present generation of Air Forces fighting men is endeavoring to greet the 27th CPSU Congress with excellent results in combat and political training and to achieve new and difficult performance levels in further improving air, weapons, and tactical proficiency and in increasing the combat readiness of units and subunits. And it is essential to accomplish these tasks in light of the demands of the April (1985) CPSU Central Committee Plenum, with high quality and without unnecessary situation simplification and relaxation of demands. And there is a single main point of reference in the activities of each and every commander, each and every military aviator in present-day conditions -- to work persistently to learn that which is essential in war. In today's complex international situation, when the present U.S. Administration is developing more and more new weapons in the race for military superiority and is seeking to militarize space, while the arms race is transitioning to a new phase, a high degree of war-fighting capability and combat readiness on the part of all component services of our Armed Forces, including the Air Forces, is a reliable guarantee of ensuring the security of the homeland and the nations of the socialist community.

[Question] Comrade Colonel General, what new things have been brought by institution of these honorary titles in military aviation?

[Answer] A great deal. First of all, introduction of the titles Honored Military Pilot USSR and Honored Military Navigator USSR served as a good stimulus for flight personnel further to increase their job proficiency. This is the crowning point, as it were, which every military aviator should seek to attain. The honorary titles for military aviation flight personnel adopted 20 years ago have played an important role in mobilizing aviation cadres to achieve successful mastery of complex equipment and increase the combat power of all Air Forces components. And those who are awarded this title naturally feel a great deal of pride and great responsibility for their personal professional improvement. In addition, this title reflects not only the high degree of flying skills of an officer or general officer but also his lofty human qualities and moral ideals, which is of great importance in the area of training and indoctrination of Air Forces winged warriors. I wish the utmost success to everybody who has devoted his life to the skies, who has joined or soon will join the winged ranks of courageous and skilled defenders of our socialist homeland.

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## ANALYZING CAUSES OF TRAINING SORTIE FAILURES

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 40-41

[Article, published under the heading "Constant Attention to Flight Safety," by Military Pilot 1st Class Maj N. Glova, aviation squadron commander: "From analysis to action"]

[Text] It was a routine flight operations day.... From time to time the roar of the turbines of aircraft taking off would fill the surrounding area. The supersonic fighter of Military Pilot 1st Capt G. Beskrovnyy lifted off precisely on schedule. A critical phase of the training sortie began. Commands from the ground came over the radio with increasing frequency. Precisely executing them, the pilot altered his flight parameters in conformity with the tactical environment and safety requirements.

One maneuver followed another.... The blip from the air target shone brightly on the airborne radar: the tactical control officer was vectoring him with precision. Soon Capt G. Beskrovnyy reported over the radio: "Missile away, breaking off...."

The fighter headed homeward, commencing his descent. Soon he smoothly touched down on the concrete runway and, completing his rollout, taxied to the ramp.

Climbing out of the cockpit, the pilot said something to the aircraft technician and, taking one more glance back at his fighter, strode over toward the subunit commander, who was standing nearby.

"So the aircraft didn't give you any problems this time?" the officer asked, after his subordinate had reported mission accomplished.

Capt G. Beskrovnyy realized what the commander had in mind and nodded his head affirmatively.

Some time earlier they had held a different conversation. The subunit commander had asked him why he had failed to accomplish a stratosphere intercept.

"Equipment malfunction," the pilot reported with certitude in his voice. "The target return disappeared from the screen while I was making a heading adjustment. It never did come back, although I had set things up correctly for the attack...."

"How could this be?" The commander asked doubtingly. After further questioning he realized that the pilot had incorrectly assessed the air situation. But Captain Beskrovnyy continued to defend his position.

Everything was cleared up in the flight recorder tapes analysis classroom. After thoroughly studying the flight recorder tapes and comparing by points in time the flight parameters of the interceptor and that of the "aggressor," the officers concluded that the radar aiming system was not to blame but rather the pilot's erroneous actions. Refamiliarizing skills following an extended interruption in flying this type of combat sortie, at one of the stages of the intercept Captain Beskrovnyy accelerated excessively and failed to consider that the aircraft had a considerable margin of stability and comparatively high inertia.

At the critique and analysis session following the day's flight operations, the commanding officer thoroughly analyzed this intercept, observance of safety procedures, and the pilot's mistakes. Most important, measures to prevent future miscalculations were specified and implemented. For example, on the day preceding flight operations theoretical drills were conducted with squadron flight personnel, at which they reviewed the aerodynamic features of an aircraft's behavior when flying in the stratosphere at supersonic speeds. After this all pilots flew intercept "missions" on the cockpit simulator. All this enabled them to perform satisfactorily in the course of scheduled flight operations.

The art of analysis.... It is no simple matter to evaluate a pilot's level of proficiency and to reveal the reasons for his lagging performance or mistakes. Sometimes only the fact, the end result is apparent. And yet it is a reflection of deep-lying, unapparent processes. Let us say, for example, that a pilot rounded out high on landing. An obvious mistake, and every pilot is familiar with the basic reasons for its occurrence. It would seem that the situation is quite clear. This is far from the case, however. Any deviation by the aircraft, such as, for example, high roundout, a hard landing, touching down long, short, bounce -- these are only visually observable phenomena, behind which human actions lie concealed.

It is very important here to discern the true cause of a pilot's error in the state and conditions in which it was made. But for this one must find answers to a dozen questions and analyze not one but several analogous incidents. And this must be done in order to penetrate to the heart of a problem and avoid a subjective conclusion, which frequently can give an erroneous directional thrust in an officer's flight training. In addition, frequently one encounters errors which are explained only with a comprehensive, thorough analysis. Such an analysis not only makes it possible to reveal the sources but also to draw up recommendations to prevent them. This is particularly important because one and the same error in its external manifestation may be

due to different causes, and therefore preventive measures will have a different directional emphasis.

Here is another incident from practical flying activities. In the course of scheduled flight operations young pilot Lt A. Smelyakov was unable to create conditions to attack the "adversary." After the training sortie, entering the preliminary preparations classroom, the flight commander asked why the pilot had failed to accomplish his training mission. Smelyakov proceeded to list what seemed to him to be the objective factors involved: the tactical control officer had not accurately vectored him, the radar sight was cluttered with interference....

"How about the weather? Was it a factor?" the commander asked.

"Of course the weather too...", Smelyakov began, and then, seeing the smile on the flight commander's face, caught himself in time.

"I have the feeling that you are not yet able correctly to analyze your actions in the air. Let's analyze them together.... Yes, heavy cumulus buildup can cause a clutter of returns on the screen. But it is not difficult to distinguish the target return, for clouds stand practically motionless, while the target, depending on whether the fighter is attacking from the front or the rear, will move relatively faster or slower. And this is apparent on the radar screen. In addition, you have forgotten about the specialized equipment, which must be utilized in a prompt and timely manner."

As he talked, the flight commander demonstrated on the board the dynamics of movement of clouds and target and explained the physical essence of the phenomenon as well as how to work with the radar sight in such a situation.

After practicing on the flight simulator, Lt A. Smelyakov once again took to the air to practice the drill "air-to-air combat in clouds." This time he performed flawlessly and returned with a victory over the "aggressor."

Speaking of the art of analysis, we should like to emphasize that every commander should first and foremost critically evaluate his own work style. Sometimes we fail to notice that we create the preconditions for subordinates to display qualities which are not the best, which can lead to undesirable consequences. And on the contrary, personal example in performing training missions, intelligently conducted analysis, and active attention to developing the necessary qualities in subordinates exert effective influence on them and help ensure flight safety.

One commander, for example, will do more talking himself at a critique session, and for the most part about deficiencies in piloting technique and observance of safety procedures. Another -- and in my opinion this is the correct way -- prefers to listen to his officers and teaches them to analyze their actions in the air. I feel that others should more actively utilize the experience and know-how of such commanders.

For example, pilots of our squadron -- Maj V. Sviridenko and Capts S. Pupyatin and Ye. Kutepov -- skillfully analyzed their actions in the air. We should

note that these officers do not limit themselves to analysis of past flights but also conduct a detailed analysis of preparations by their subordinates for a flight operations shift, which includes an evaluation of their moral-psychological state, their overall level of flying proficiency, taking into consideration their proficiency regarding specific training tasks and weather conditions, and pilot individual characteristics, in particular the effect on their proficiency of extended interruptions in flying, as well as many other factors.

Our flight commanders consider analysis data in their daily activities and in the campaign for accident-free flight operations. Familiar with the pilots in their subunit and maintaining a pilot training schedule, they competently schedule for each aviator for a flight operations shift that which he needs at the given moment and which is logical from the standpoint of method and flight safety.

Profound, comprehensive analysis on the basis of a dialectical approach to study of the objects and phenomena of the practical environment is a powerful means of monitoring the quality of pilot preparation for flight operations, prompt and timely prevention of faulty procedures and violations of regulations governing flight operations. In this connection every commander should have a mastery of the art of analyzing training flights, and not only training flights, and should have the ability objectively to evaluate the performance results of oneself and one's subordinates. Then, on the basis of this information, they should take prompt measures to increase pilots' proficiency, for in the final analysis this determines a subunit's combat readiness and flight safety.

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## ANALYZING FLIGHT RECORDER TAPES

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 40-41

[Article, published under the heading "The Reader Suggests," by Military Instructor Pilot 1st Class Lt Col N. Litvinchuk, candidate of technical sciences: "Utilizing Supplementary Information"]

[Text] Flight recorder tapes make it possible to evaluate the operating condition of aircraft, performance of a training mission, to determine deviations from the required parameters, and thoroughly to analyze a pilot's errors in flying technique. Regular production flight recorder gear, particularly the SARPP-12G, contains certain shortcomings, which include stepwise recording of airspeed and a limited lower range of airspeed measurement, 200 km/h, which on some aircraft is above the lower airspeed operating limit.

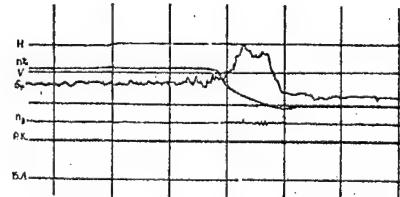


Figure 1. Record of landing approach parameters of an L-39 aircraft, SARPP-12G tape.

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The SARPP-12G tape (Figure 1) contains the record of the approach and landing of an L-39 jet trainer. It is evident from the figure that one cannot directly determine the aircraft's airspeed from the record in these phases of flight, because the lower recording limit is higher than landing speeds, which run 175-180 km/h on touchdown.

To estimate airspeed on final approach, which is of considerable importance for analyzing a pilot's performance, one can utilize elevator deflection recordings, which are connected with trim diagram rate. Considering that aircraft movement on glidepath and float after roundout are at small angles of trajectory inclination, at which cosine Theta is approximately equal to 1, one can use a level-flight trim diagram.

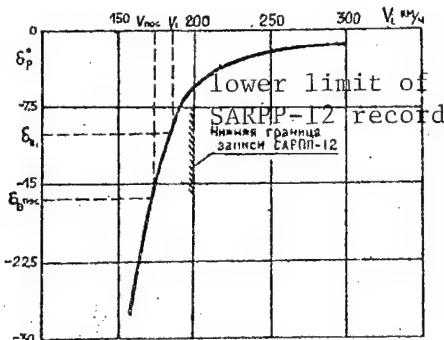


Figure 2. Variation of L-39 aircraft trim diagram in landing configuration.

Figure 2 contains a trim diagram for the L-39 aircraft in landing configuration. It is apparent from the figure that as airspeed decreases, the required elevator deflection increases sharply, and this means that one can estimate airspeed and "correct" the noted deficiency of the SARPP-12G.

In view of the fact that trim diagrams in a specified aircraft configuration are determined by aircraft weight, center of gravity margin, and other factors, strictly speaking in order to analyze airspeed one must have at hand a family of trim curves. However, in connection with the fact that the landing weight of many aircraft is severely restricted and that their motion close to the ground takes place in specific standard trajectories, one can use just one average trim curve to determine airspeed on landing, final approach, and other low-airspeed phases of a flight.

A similar approach can be employed to determine angle of attack in these phases. For this one must use a curve of relationship between angle of attack and elevator deflection in level flight.

We should note that in practice specialists estimate landing execution by the character and magnitude of elevator (stabilizer) deflection. Airspeed and angle of attack are not yet being determined from this parameter, however. There still exists unutilized potential for analyzing flight execution with existing performance monitoring devices, but one must skillfully utilize supplementary automatic recorder data.

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## COSMONAUT DESCRIBES 237-DAY ORBITAL MISSION

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 44-45

[Article, published under the heading "The Space Program Serving Science and the Economy," by twice Hero of the Soviet Union Pilot-Cosmonaut USSR Col L. Kizim: "237 Days in Orbit"]

[Text] A festive get-together was held at the Exhibit of Achievements of the National Economy of the USSR, dedicated to the 25th anniversary of the Cosmonaut Training Center imeni Yu. A. Gagarin. Soviet pilot-cosmonauts and numerous guests viewed exhibits entitled "25th Anniversary of the Cosmonaut Training Center imeni Yu. A. Gagarin" and "Scientific and Technological Advance." They were shown film documentaries. A report on preliminary results of the longest time spent by a resident crew on board the Salyut 7 orbital station in the history of the manned space program was presented by Pilot-Cosmonaut USSR L. Kizim. The following article is based on this report.

Soviet citizens greeted with approval the decisions of the April (1985) CPSU Central Committee Plenum, which once again stressed that our people, under the guidance of the Communist Party, are unwaveringly following a Leninist course. Successes in development of the economy, science and technology are becoming increasingly more substantial with each passing year. Last year the longest manned mission in the history of space exploration took place, running 237 days. It constituted a logical continuation of Soviet manned missions on board long-term orbital stations, with extending of the duration of manned space missions.

The mission program called for the conduct of new industrial, geophysical, astrophysical, and biomedical experiments and research. A total of six spacewalks were made, for the purpose of performing installation-takedown and repair activities. We received two visiting crews. One was an international crew, with the participation of an Indian cosmonaut. The second visiting crew included a woman, who would be making a spacewalk.

We dedicated our mission to the 40th anniversary of the Victory of the Soviet people in the Great Patriotic War.

## Training For the Mission.

In our opinion the crew was chosen well. From the moment it was formed, a healthy psychological climate was established, and discipline, demandingness, mutual respect and oversight prevailed.

Preparations were successfully accomplished on schedule. This was also fostered by the fact that, prior to this, V. Solovyev and I had been through many ground tests and practice drills. O. Atkov trained for the most part in his own area of specialization.

Our immediate preparation was structured on a thorough analysis of the results of preceding missions. Theoretical training sessions and practice drills on simulators, test benches and in the weightlessness simulation tank were conducted on a high professional level by specialists from the Cosmonaut Training Center imeni Yu. A. Gagarin and other organizations. Doctors from the Cosmonaut Training Center, the Biomedical Problems Institute and other medical establishments, for example, devised an effective system of training and conditioning the cosmonaut's organism to live and operate in conditions of weightlessness. It included special physical exercises and training routines for the vestibular mechanism on training apparatus and on board flying laboratories during brief weightlessness. During the period immediately prior to the mission they were combined with training sessions with alternating loads on the tilting table and with the body positioned head downward on the tilting table during sleep.

I want to make particular mention of the most complex part of the training, connected with practicing and rehearsing spacewalk operations and procedures. Practice sessions were conducted in training laboratories, on simulator equipment, in altitude chambers, in the flying laboratory during brief weightlessness, and in the weightlessness simulation tank. Initial spacewalk activities were to involve only installation of additional solar panels. Three months prior to launch it was determined that there would be the need to perform repairs on the joint propulsion unit. We had no experience in performing such repairs. Special tools and devices were required. They were designed and fabricated by the appropriate organizations. We then conducted ground tests and refinement procedures, and the crew proceeded with practice and rehearsal sessions.

Flying laboratories are an excellent dynamic training simulator for preparing for spacewalks and related work activities. They make it possible to practice and rehearse individual program elements in conditions of weightlessness. The weightlessness simulation tank can be considered a very good combined training simulator, in which we practiced and rehearsed the entire schedule of extravehicular activities with simulation of weightlessness.

Extended, diversified psychological training of the mission crew was conducted, taking into account the specific features of the forthcoming mission and utilizing new means and methods devised by scientists and specialists. And, finally, we took fully into consideration the experience, know-how, suggestions and comments of the first and second resident crews,

which had a combined total of almost a year working on board the Salyut-7 station.

#### Carrying Out the Mission Program

It was complex, intensive, and interesting. We spent the first days getting the station back into operation and becoming accustomed to weightlessness. Diversified and heavy-volume work activities at this time could complicate adaptation of the organism. Therefore comments made by the members of the preceding 211- and 149-day mission crews pertaining to planning and scheduling the cosmonaut work-loading were fully taken into consideration.

Accomplishment of the mission program was promoted by businesslike coordination with the specialists of the Main Operational Control Team at Mission Control and at the Cosmonaut Training Center imeni Yu. A. Gagarin. It is also pleasant to think back now to the well-organized feedback analysis of our activities. The crew instructor regularly took part in communications, discussing with us all matters pertaining to work results, clarifying certain elements or peculiarities, which helped prevent mistakes. Onboard practice sessions were planned and executed in the area of such complicated combined activities as astrophysical experiments and operations connected with EVA. This enabled us to make corrections in the mission activities program in a flexible and efficient manner, thus reducing the probability of errors.

In the opinion of the crew, such practice sessions are especially valuable for performing experiments which were not adequately rehearsed on the ground. One of the spacewalks constituted such an activity for us, for example. Total EVA time was 22 hours 50 minutes. We worked both in sunlight and shade. Five of the six EVAs were to repair the backup joint propulsion system. We took down parts of the station's solar panels to analyze their electrical characteristics.

Our EVA experience attests to the possibility of performing diversified installation, repair, and research activities outside the spacecraft. With appropriate training, a crew is capable of performing complex repair and installation work on the station, extending its service life. One can also state that there is now a realistic possibility of assembling large orbital systems with the aid of special fixtures and tools.

Two visiting crews worked at the station during the mission. The first was a Soviet-Indian international crew (spacecraft commander Yu. Malyshev, flight engineer G. Strekalov, cosmonaut-researcher R. Sharma). This visiting crew successfully performed geophysical, industrial, and medical experiments. The second visiting crew consisted of spacecraft commander V. Dzhanibekov, flight engineer S. Savitskaya, and cosmonaut-researcher I. Volk. Its principal objective was to accomplish an EVA to perform a complex technical experiment utilizing a universal hand tool (URI). The cosmonauts successfully accomplished this task.

## Scientific Experiments and Research Investigations

More than 500 experiments were performed for the benefit of science and various sectors and branches of the economy. Practically every one of them required of the crew a full effort, strict observance of schedules, a specific attitude orientation of the orbital complex, and precise monitoring of time intervals.

The astrophysical experiments involved high-accuracy dynamic modes, including manual and semiautomatic control. Of the more than 100 dynamic modes, for example, 90 involved astrophysical experiments. In other words, 130 out of 237 days were heavily-scheduled with complex station dynamics. We continued the Soviet-French space research program involving utilization of Piramig equipment, PSN, and the Siren X-ray telescope-spectrometer. We conducted 46 sessions involving measurement of the spectra of eight X-ray sources in our own galaxy and in other galaxies. Of particular interest was a source which at the time was showing heightened activity both in the X-ray and optical frequency bands. It can be observed only from orbit, where there is no atmospheric interference.

In the course of five research sessions, we studied with the aid of the Elektrotopograf instrument the effect of exposure of various materials to space. We investigated 12 specimens of structural surfaces. We held 18 sessions on spectrometry of the Earth's surface with the MKS-M spectrometer.

We performed a number of experiments on the Isparitel [Vaporizer] industrial unit to determine the possibility of applying metal coatings in conditions of a vacuum and weightlessness. We spray-coated 46 specimens of copper and silver alloy films of various thickness.

Our 237-day orbital mission covered all seasons. This enabled us to devote attention to individual regions in photographing the Earth's surface and in visual observations connected with the Earth resources research program and study of the environment. Targets of investigation included the Crimea, the Black Sea, the Caspian lowlands, areas adjacent to the Baykal-Amur Mainline, the republics of Central Asia, the Pamirs and Tian Shan, West Siberia, and Maritime Kray. We performed work commissioned by several hundred Soviet organizations and a number of socialist nations which are utilizing space information in their scientific and production activities. In addition, the crew took part in two international combined programs: Chernoye More [Black Sea] and Gyunesh-84.

The largest volume of data was obtained with the aid of the MKF-6M six-channel camera. 4,400 frames were taken with this camera, and 1,640 with the KATE-140 unit.

For the first time cosmonauts worked on a method of visual-instrumental observations with employment of a color camera and the Niva video system. Our crew gave 54 target designations with coordinates and a description of oceanographic objects. Information was sent to the Main Ocean Center and, after processing, was transmitted to research and fishing vessels for verification and practical utilization.

Accomplishment of the extended research program required replenishing the orbital station's resources. The essential equipment and working materials were delivered to us by Progress cargo craft. We received and unloaded five of these "freighters."

The crew medical support system included checking the state of health and fitness of the cosmonauts, organization of work and rest regimen, diet and personal hygiene, and prevention of adverse effects of weightlessness. The main responsibility in this regard was borne by cosmonaut-researcher Oleg Atkov. As a physician he performed not only practical but also scientific tasks connected with medical research.

An efficient method of preparing the organism for an extended mission enabled the crew to adapt to weightlessness fairly quickly. During the mission none of us experienced vestibular disturbances, while the sensation of rushing of blood to the head was moderate and did not impede our work. We maintained a good state of fitness throughout the entire mission.

In connection with this we should like to emphasize that space medicine has made a large contribution to the success of the Soviet space program. It is precisely an improved life-support system and development of means and methods of preventing adverse effects of weightlessness on the human organism which ensured the victorious procession of manned space exploration from Gagarin's 108 minutes to 237 days in orbit. Joint labor by the specialists at the Cosmonaut Training Center imeni Yu. A. Gagarin and associated organizations helped in the successful conduct and completion of the mission program.

Each crew member realized that the success of such a lengthy mission depended in large measure on mutual relationships and the psychological climate in our group during the mission. I can state that there was total and complete mutual understanding between crew members during the entire 237 days. The work style of the mission control team was of great importance in forming a favorable psychological climate on board. A correct assessment of situations developing on board the orbital complex, an understanding of our state and realistic capabilities at all times and, finally, a personal relationship between the principal capcoms and other ground services representatives with us greatly fostered a normal work routine.

The capcom has been, is now, and will continue to be the main link between cosmonauts in orbit and the ground services and representatives of establishments at Mission Control Center. His functions were performed by specialists from the Cosmonaut Training Center imeni Yu. A. Gagarin who, just like the crew, had undergone training on all training simulators and apparatus, preparing their organism for operating in various conditions of space. They were well familiar with the jobs we would be performing on board the station. Therefore they were able completely to understand, sense, and perceive the condition of the cosmonauts and to be a reliable support for the crew during a mission. All information flowing to the Salyut 7 was channeled directly through the capcom, and he was the communicating link for all our activities connected with space station dynamics and the conduct of experiments and research. These operators received our personal requests and

suggestions. Their precise, flawless performance also helped a great deal in a psychological respect.

The crew psychological support team included the capcoms, psychologists, and other specialists. This team handled measures connected with providing the crew with psychological stress relief, arranged TV and radio communications get-togethers with families, friends, performing artists, and writers, took part in preparing surprise programs, selecting video and sound recordings, and handling space mail, which was a considerable source of pleasure, arriving with visiting cosmonauts or on board unmanned supply craft.

Although readaptation was difficult, it was accomplished successfully. Thanks to measures to restore health, we became stronger day by day, and we were anxious to get home. We were convinced, however, that observance of a cautious regimen for a brief time following an extended stay in space was extremely necessary.

We hope that everything we accomplished will be utilized in various areas of science, technology and the economy and will serve as a basis for further improvement of space technology, crew activities on board the orbital complex, and will promote an increase in the duration of missions and further improvement in cosmonaut training methods. We are proud of the fact that we made what contribution we could to the cause of peaceful utilization of space and thus toward strengthening world peace.

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## U.S. ASAT PROGRAM CRITICIZED

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) pp 46-47

[Article, published under the heading "The Pentagon's Orbital Arsenal," by Col M. Sergeyev: "Taking Aim at Satellites"; based on materials published in the foreign press]

[Text] Development of antisatellite weapons is one of the key objectives of Reagan's "Star Wars" program. Back at the dawn of the space age, when great prospects of peaceful utilization of space were opening up before mankind, Pentagon officials were already looking toward space as a potential theater of military operations and a springboard for the conduct of aggressive policy. Already at that time they began planning combat operations in space, and they placed the artificial earth satellites of the "potential adversary" on the list of priority targets to be destroyed. Various designs of antisatellite weapon systems were developed by the United States, superseding one another with kaleidoscopic swiftness, experimental and operational combat models were designed, built, and field-tested.

Back in 1959 an Explorer satellite was intercepted by a Bold Orion missile launched from a B-47 bomber. Large-scale research was conducted in the 1960's in the Bambi and Saint programs to develop satellite interceptors. During those same years the Pentagon deployed two ground-based antisatellite systems on islands in the Pacific: on Kwajalein Atoll (based on the Nike-Zeus antiballistic missile) and on Johnston Atoll (using a modified Thor-Agena rocket). Both systems were intended to destroy satellites of the "potential adversary" on their first revolutions in orbit.

During all these years the Soviet Union worked persistently to convince U.S. leaders of the danger of military encroachment on space and the particularly destabilizing nature of offensive antisatellite weapons, the deployment of which would lead to increased threat of sneak attack and the possibility of occurrence of serious conflict situations in various parts of the world. But the Pentagon continued testing more and more new weapons for destroying space objects, expanding the area of their potential combat employment.

As is evident from a Presidential directive on policy regarding utilization of space and Pentagon plans for the period 1984-1989, the United States intends

to build the foundation of a global antisatellite system and even "to deploy fully developed, ready-to-use space-based systems," to make the ASAT aircraft-launched antisatellite weapon system operational, and to develop new ground-based antisatellite systems.

The United States has made considerable progress on the development of an aircraft-launched intercept missile system (ASAT system), which has been in development since 1977, and has been undergoing flight testing since 1984. The system is designed to intercept satellites at altitudes up to 1,000 kilometers. It includes a SRAM-Altair two-stage guided missile, which carries a small separating interceptor vehicle in its nose section, and a launch-platform aircraft (a modified F-15 fighter). The missile with interceptor weighs 1,180 kg, is 5.4 meters in length, with a maximum diameter of 0.5 m.

The interceptor is designed as a homing projectile equipped with infrared sensors to seek out and lock onto a target in space, an onboard processor, a laser gyroscope, and solid-propellant trajectory-correction motors. The interceptor vehicle weighs 16 kg.

The SRAM-Altair missile is carried by the launch-platform aircraft on a special belly pylon, which contains auxiliary test and launch equipment. According to reports in the foreign press, the modular arrangement of the ASAT subsystems makes it possible to modify an F-15 fighter to the launch-platform configuration in 6 hours.

Employment of the airborne ASAT antisatellite weapon system would be as follows: the launch-platform aircraft with missile, which is either on the ground or airborne, receives a preliminary target designation from ground antisatellite defense services and proceeds toward the launch area. Here the pilot, following refined ground-provided data, turns his aircraft to the computed intercept heading. The rocket can be fired in a pitch-up attitude or in level flight, at subsonic or supersonic speed, at an altitude of 15,000-19,000 meters. The rocket carries the interceptor to the target satellite intercept area. The interceptor separates from the rocket, after which the infrared sensors of its seeker system detect and lock onto the target. The kill is accomplished by collision between interceptor and target. Two of the 12 planned tests of the ASAT system took place on 21 January and 14 December 1984. According to plans announced by the United States, the ASAT system was scheduled to become operational by 1987. According to reports in the foreign press, the first two squadrons of 36 F-15 launch platforms are to be deployed on the U.S. Atlantic and Pacific coasts at Langley (Virginia) and McChord (Washington) AFB. Future plans call for increasing the number of F-15 bases, boosting the number of launch platforms and antisatellite missiles to 56 and 112 respectively.

The Pentagon has already allocated approximately 4 billion dollars to the ASAT program, 2.5 billion of which has been spent on producing components of the antisatellite system, and 1.5 billion on further research and testing. According to the calculations of Congressional budget specialists, total expenditures in the future may exceed 10 billion dollars.

Today some representatives of the U.S. military-industrial complex, preparing the soil for additional contracts in the area of development of antisatellite systems, are leveling intense criticism at the ASAT system for its limited capabilities and argue the system's inadequate combat effectiveness to intercept low-orbit satellites (according to their calculations, not more than 25 percent). Others mention the lack of capability to destroy satellites in high orbit and the system's poor survivability. Nevertheless the Pentagon is sticking with the ASAT system and is working on a number of further improvements of the system and modes of its combat employment. Steps are to be taken to forward-base F-15 fighters with antisatellite weapons beyond U.S. soil, primarily in the Southern Hemisphere, to in-air refuel airborne launch platforms in order to extend their combat radius from 2,500 to 7,500 kilometers, and to develop antisatellite weapons for carrier-based aircraft.

To provide capability to intercept satellites in higher orbits (up to 1,500 km), it is proposed to equip the SRAM-Altair missile with a more powerful second-stage motor. Plans also call for replacing the first-stage motor. The Pentagon estimates that improvement of the ASAT system will require the additional spending of 1-2 billion dollars.

It is noted in the foreign press that interceptor satellites could be launched into orbit (including geostationary) by Trident or Minuteman missiles. The cost of this system is estimated at approximately 7.5 billion dollars.

The Pentagon's plans assign an important role to the development of space-based antisatellite systems. According to the schemes of the "Star Wars" theorists, such systems will be able to destroy the space vehicles of other nations in any orbit whatsoever, and will be able to protect friendly satellites. Preference is given to orbital platforms carrying lasers or electromagnetic cannons. Circling in so-called waiting orbits, on ground command these platforms would approach satellites of the potential adversary to a distance of as close as 30 kilometers and destroy them.

According to the calculations of U.S. experts, a space-based antisatellite system consisting of 15 maneuvering orbital platforms (7 in low waiting orbit and 8 in geostationary orbit) will be able to accomplish their assigned missions on a global scale in 24 hours. The cost of the system is estimated at 13.7 billion dollars and its operational service life at 10 years.

Simultaneously research and experimental design activities are in progress, on U.S. Defense Department contracts, in the area of development of ground-based antisatellite laser weapons. Official spokesmen claim that a number of U.S. scientific research laboratories have made considerable progress both in the development of ground-based lasers (power in the order of several dozen megawatts) and in accomplishing passage of laser emissions through the atmosphere without distortions. Special facilities for testing such lasers are being built at the military's White Sands Proving Ground (New Mexico) and in California. The Pentagon figures that with sufficient appropriations (more than 6 billion dollars) such a system can be deployed at the beginning of the 1990's. The U.S. Navy in turn has let a contract for research on a shipboard antisatellite laser weapon.

In conformity with Reagan's announced so-called "Strategic Defense Initiative," the United States intends to deploy an all-encompassing antimissile defense system containing elements of space basing. We should note that the issues of antimissile and antisatellite combat are today organically linked. These two kinds of weapon have a great deal in common. Therefore the development of an antisatellite weapon is viewed in the United States as the first stage toward development of space-based antimissile defense. Essentially we are dealing at present with development of the foundation of a unified global system of general-purpose offensive space weaponry capable, in the opinion of Pentagon strategists, of combating with equal success both the missiles and satellites of the "potential adversary" in space and from space.

Pushing the development of offensive antisatellite weapon systems, the Pentagon intends to implement a broad range of measures to ensure the protection of U.S. space vehicles, in particular orbital platforms carrying antimissile and antisatellite weapons. Plans call for providing these platforms with dummy targets, ECM gear, and powerful propulsion units for maneuvering miniature interceptors.

Just what objectives are being pursued by the Reagan Administration, in spending billions of dollars on the development of offensive antisatellite weapon systems? Today even the most zealous U.S. defenders of "Star Wars" cannot hide the fact that such systems are intended to play the role of a key element in a first-strike potential. The Pentagon would like to obtain the capability to deliver preemptive strikes on Soviet surveillance, early warning and other satellites in order to endeavor to "blind and deafen" the other side, to catch it off guard, to secure the element of surprise in a massive nuclear attack. They are also hoping, by disorganizing government, command and control of the USSR Armed Forces in this manner, to weaken its capability to retaliate. This was stated with extreme frankness by a prominent U.S. expert on "Star Wars," T. (Karas), who acknowledged that "it would make no sense for the United States to develop antisatellite systems if it were not planning to launch a first strike, to initiate a nuclear war."

The Soviet position vis-a-vis U.S. plans to turn space into an arena of the arms race continues to be clear and firm. A permanent ban should be placed on the utilization of force in space and from space against the Earth, as well as from the Earth against objects in space. This conclusion was clearly formulated by CPSU Central Committee General Secretary Comrade M. S. Gorbachev in an interview with the editor of the newspaper PRAVDA: "Just as the appearance of nuclear weapons did not bring an end to conventional weapons but merely prompted an accelerated nuclear and conventional arms race, so the development of space weapons will have the same result -- the arms race will become even more intense and encompass additional domains."

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## NEW BOOK EXPOSES U.S. POLICY OF MILITARIZING SPACE

Moscow AVIATSIYA I KOSMONAVTIKA in Russian No 8, Aug 85 (signed to press 2 Jul 85) p 46

[Article, published under the heading "New Books": "Path Toward War?"]

[Text] "How does Washington view space? A simple answer cannot be given to this question," writes the author of the foreword of a recently published volume.\* "The views, attitudes, plans and interests of those who reside in the U.S. capital are too diverse. The view of the world is different from the corridors of power, the offices of corporation owners, from the factory shops and offices in which the rank-and-file Americans work, from the unemployment lines, and through the filthy windows of flophouses, which house far from all the homeless." It is the White House and the bosses of the military-industrial complex, however, who decide how space is to be utilized. Not only the American people but all mankind bear the consequences of the decisions they make. This is what is discussed in this book.

The volume contains articles, interviews, excerpts from books, and official statements by the White House and U.S. Government officials. This comprises the content of the four sections.

The first section contains documents and texts of speeches by U.S. presidents dealing with policy in the area of space exploration and utilization. The section begins with excerpts from Dwight D. Eisenhower's memoirs and ends with Ronald Reagan's radio address of 28 January 1984.

The second section contains articles on the views of "hawks" and conservative politicians of the 1950's and 1960's on utilization of space. It was at that time that ideas of using space as a potential theater of military operations began to take form in the Pentagon.

The third section is entitled "Path Toward War?" This section describes the current status of U.S. space programs and their development trends.

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\* "Kosmos: Kakim yego vidyat iz Washingtona" [Space: How It Is Viewed From Washington], translated from English, foreword written and edited by G. S. Khozin; Epilogue by G. M. Grechko, Moscow, Progress, 1985, 269 pages, 40 kopecks.

Acquaintance with translated primary sources will enable the reader to assess how dangerous are the schemes of the present White House Administration and to trace the steady growth of the militarist directional thrust of U.S. space policy.

The final section of the volume contains statements by journalists, scientists and military people who do not share the views of the White House leadership. They reveal with specific examples the opportunities opening up to mankind under the condition of peaceful utilization of space.

"Fortunately," Pilot-Cosmonaut USSR G. Grechko notes in the epilogue, "the world space program is developing through the efforts not of the United States alone.... Having blazed the trail for mankind into space, the Soviet Union is doing everything possible to ensure that space is an arena of cooperation by all nations for the benefit of peace nad progress and that space hardware serves man, making his daily labor easier, promoting efficient utilization of natural resources, bringing countries and continents closer together, and strengthening mutual trust between peoples."

This book is intended for a broad readership and, I believe, will be useful to propagandists and lecturers.

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